

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, JUNE 12, 1886.

ORIGINAL LECTURES.

CLINICAL LECTURE ON CHOREA; WITH REMARKS ON INFANT-FEEDING.

Delivered at the Children's Hospital, Philadelphia,

BY ARTHUR V. MEIGS, M.D.,

Physician to the Hospital.

Reported by WILLIAM H. MORRISON, M.D.

GENTLEMEN,—It is scarcely worth while for me to tell you what is the matter with this little girl, as it is very evident that it is a case of chorea of unusual severity. The child is 10 years of age, and had smallpox three years ago, but has never had rheumatism and never had chorea before. The present illness began two months ago, and during the past two weeks has greatly increased in severity. She is unable to walk or stand, and when the attempt is made she is thrown to the floor by spasmodic action of the muscles. As you observe, the choreic movements are bilateral, although decidedly more marked on the left side. When she attempts to make any voluntary movement, as giving me her hand, the jerking and twitching are greatly exaggerated.

Examination of the heart shows that its action is fairly calm, although a little irregular. There are five or six beats at one rate, and then five or six more rapid ones, but no positive murmur can be heard. The irregularity of the heart is no more than might be expected in consequence of the constant jerking of the muscles. There is a slight murmur with the first sound at the apex, but this is not a positive indication of organic disease, although endocarditis is a very common accompaniment of chorea.

The diagnosis in this case is of course easy, and can be made at a glance, and in all fully-developed cases of this complaint it is readily made. In the very beginning of the disease it is sometimes difficult to distinguish between it and the slight nervous jerking which is natural to some children of a nervous disposition. Again, it is sometimes difficult to make up your minds as to the nature of the case when

the affection takes what is called the paralytic form. Occasionally in children an apparent attack of paralysis is really chorea. I have myself never seen a case of this kind, but such cases are on record, and there is no doubt that they occur. The true nature of the affection may be determined by noting the fibrillary twitching in the apparently-paralyzed muscles. In all cases of paralysis in children, the possibility of the case being of these unusual forms of chorea should be considered.

Prognosis.—In cases of uncomplicated chorea, especially in children, the prognosis is almost always favorable. It is very unusual for a child to die of the disease, and I have never seen such a case. In this instance the affection is apparently uncomplicated, and the prognosis therefore good. Last year I attended a child with chorea accompanied with acute articular rheumatism and unusually extensive pericarditis. Later, this child developed chorea, but ultimately recovered and is now apparently well, and I can discover no disease of the heart, yet from the severity of the pericarditis, which was so great that the friction-sounds could be heard before the ear touched the chest, it is very likely that there are pericardial adhesions.

With reference to treatment, there has been a great advance made in the last few years. The mode of treatment now employed is safe, and seems to have a greater influence over the disease than any other method which has been employed. There have been a multitude of drugs used in this affection; in fact, nearly all the drugs in the pharmacopœia have been employed at one time or another. For many years arsenic has been regarded as of great service in this affection, but within the past few years a new mode of administering it in chorea has been recommended, which is as follows. The parents should be given a bottle of Fowler's solution, with directions to use it only as ordered, for the drug is poisonous. They should have written directions to this effect. Give the child three drops three times a day, directly after meals, to-day; to-morrow, give four drops after breakfast and three drops after dinner and supper; the following day, give four drops after breakfast and dinner and three drops after supper; the next

day, four drops three times a day; the succeeding day, give five drops after breakfast and four drops after dinner and supper. In this way the dose is to be gradually increased until ten drops three times a day are given, or until the constitutional effects of the drug are manifested. These are puffiness of the face, particularly of the under eyelids, pain in the stomach, and diarrhoea. Upon the appearance of any one of these symptoms the dose should at once be reduced to three drops three times a day, and then gradually increased again, or, if necessary, the drug may be entirely discontinued for a few days. If used in this way, arsenic is perfectly safe and can do no harm. The dose should be kept at a point just short of producing constitutional symptoms.

This child should also be put at perfect rest in bed. She is unable to stand or walk, and is liable to violent falls. As you have seen, any attempt to execute a voluntary movement throws the child into a perfect spasm. This so exhausts the muscles and the vital energies as to make it important that she should be put at rest. In regard to diet, any ordinary wholesome food may be given.

I might say that in some cases there is complete loss of speech; and this was present in the case I described to you. This child appears, however, to have complete control of speech. Even when loss of speech is present, the prognosis is favorable if the case is otherwise uncomplicated.

INFANT-FEEDING.

I wish now to say a few words upon the subject of infant-feeding, and I think no more important question can be brought to your attention. In this way we can do more for the advantage of babies and children than by any other means. For children more good probably can be done in this way than for adults, although the same attention has not been bestowed upon the subject by physicians, and there is no uniformity of conclusion as to what should be done for children. There have been many works on diet written, but they have been principally for adults. There is a lamentable difference of opinion as to how young infants should be fed. When we consider the fact that in the year 1883 more than one-third of the total number of deaths in the city of Philadelphia were of children under one year of age, it

seems to me to be self-evident that many of these deaths were the result of an injudicious diet and were preventable. This is, therefore, a subject which we should study, and from the study of which we may hope for much towards the improvement of medicine. There is no doubt that the best results are attained when the child is nursed, either by its mother or by a wet-nurse. In the absence of human milk, we should give something approximating it as nearly as possible in composition. To do this we must first ascertain what is the composition of human milk. Milk, whether that of woman or of the cow, contains five ingredients: water, fat, casein, sugar, and salts. Every complete dietary must contain all these different elements. We must take into our bodies a certain amount of water, of fat, of nitrogenized matter (which corresponds to the casein of milk), of sugar and starch, and of inorganic matters, such as chloride of sodium, phosphates, etc.

The difficulty we have had to contend with in the past has been that there is no agreement in regard to the composition of human milk. Until lately, physiologists have usually rated the casein in human milk at about three per cent., which is too high. My analyses lead me to rate it at about one per cent. Other modern analysts rate it at two per cent. Our conclusions in regard to this point must determine our decision in regard to what is the best food for infants, and whether we shall give cow's milk pure or diluted, and how much diluted. It is, therefore, a very important point. Many physicians direct that the new-born baby shall be given pure cow's milk; but this I consider under no circumstances admissible. Cow's milk contains three or four per cent. of casein, and this proportion is too much, and must be reduced. An appropriate food is that prepared according to the following formula:

Two tablespoonfuls of cream;
One tablespoonful of milk;
Two tablespoonfuls of lime-water;
Three tablespoonfuls of sugar-water.

The sugar-water is made by dissolving seventeen and three-fourths drachms of sugar of milk in a pint of water. This produces a food more nearly resembling in composition human milk than anything of which I know. There are other foods

which approach this very nearly in composition, and I do not say that it is the only one that may be employed; but I must raise my voice, however, against the use of cow's milk, either pure or reduced with one part of water, for very young infants. If only moderately diluted, it contains too much casein; if sufficiently diluted to reduce the casein to the proper amount, there is too little fat.

Three months ago I was called to see a child, then $2\frac{1}{2}$ months old, which had been hand-fed from birth. I learned that it had been fed on condensed milk, a preparation of which I do not approve, although it sometimes answers a useful purpose. The first thing I told the parents to do was gradually to give up the condensed milk, and substitute the preparation the formula of which I have given. The nurse was a woman who had had charge of children under similar circumstances, and had her own views about the proper methods of feeding. The substitution was made, but the food did not seem to agree entirely: still I advised that its use should be persisted in. Some time later, when I called, I learned that for the previous four days the baby had been given a mixture suggested by the nurse, and which had agreed perfectly. This consisted of two parts cow's milk and one part water. As the child seemed to be doing well, I made no objection, for it is a good rule when a child thrives on any particular food, no matter what it is, to let well enough alone. About two months after this I was again sent for, to find the child somewhat out of sorts. I saw it from time to time until a short time ago, when it was five months of age. The child then had a cold in the head, with some hoarseness and cough, for which I prescribed; but the same afternoon I was sent for, to learn that it had had a convulsion. When I saw it, it had no fever, and seemed to be as well as before the occurrence of the convulsion. In the course of two days the child had five convulsions, lasting from five to ten minutes. After these passed off, it seemed immediately as well as before the attacks. I learned that there had been constipation, and that the movements were white and thick, almost like putty, and that it had been necessary to give large doses of medicine to act on the bowels. I inferred from this that there had been an accumulation of the excess of casein in the intestinal canal, and ordered a mixture of three

tablespoonfuls of castor oil with five of simple syrup of rhubarb, a teaspoonful of this to be given every two hours. In the course of two days the child took nine teaspoonfuls of castor oil and fifteen of the simple syrup of rhubarb, and it was only then that the bowels began to act freely. These movements consisted of the putty-like material which has been described. In cases of fecal accumulation rapidly-acting purgatives will not have the desired effect. It is necessary to give something that may be administered several times a day, and, if it is not vomited, the mixture mentioned acts very well. In adults, a pill containing two grains of compound extract of colocynth or a little aloes and rhubarb will answer the same purpose. I have seen such a pill given three times a day for three weeks without producing excessive action of the bowels.

In the case I have detailed, the trouble was undoubtedly the result of the method of feeding introduced by the nurse. As the preparation which I had first suggested did not seem to answer the purpose perfectly, I ordered the following:

Two tablespoonfuls of cream;
One tablespoonful of milk;
Two tablespoonfuls of lime-water;
Three tablespoonfuls of water;
One level teaspoonful of Mellin's food.

Mellin's food is the only one among the artificial foods that I use. Horlick's food I believe has the same composition, but I have not used it. Under this treatment the condition of the child has much improved.

The use of cream in infant-foods has been objected to by a well-known New York physician, on the ground that microscopic examination of the stools of children so fed showed the presence of undigested fat. He also states that undigested fat is found in the stools of healthy babies nursed by healthy mothers, and suggests that perhaps nature has placed an undue proportion of fat in human milk. The criticism seems hardly well sustained, and the discovery of undigested fat in the stools of babies fed upon cream appears rather to be a reason to continue its employment, for certainly better results are attained by nature than by any of our artificial means.

ORIGINAL COMMUNICATIONS.

REPORT ON THE PROGRESS OF
PATHOLOGY.

BY J. H. MUSSER, M.D.

(Continued from page 635.)

EVOLUTION IN PATHOLOGY.

SINCE the principles of biology were formulated or demonstrated by Darwin, Huxley, Spencer, and their co-workers, pathologists have endeavored from time to time to classify the facts of morbid morphology in such manner as to bring them in harmony with the general laws of biology. The philosophic work of Cohnheim, the charming essays of Paget, the labors of Creighton and others, attest this. Lately, Mr. J. Bland Sutton, F.R.C.S., in the Erasmus Wilson Lectures on Pathology,* took the above subject for his text.

Mr. Sutton is known by his frequent contributions to comparative pathology, and it is needless to say that his knowledge of this branch of the science, as well as of comparative anatomy and embryology, was largely drawn upon. Only a brief presentation can be made of his facts and arguments.

His first lecture was on "Correlation and its Effects," basing his remarks on the principles of evolution enunciated by Huxley in three laws: I. There has been an excess of development of some parts in relation to others. II. Certain parts have undergone complete or partial suppression. III. Certain parts which were originally distinct have coalesced. For example, in embryonic life every animal possesses male and female generative organs in a potential form; either those peculiar to the male or the female gain the ascendancy,—an excess of development illustrating the first law. The opposite set of organs are suppressed or disappear completely (second law). In fishes, reptiles, and birds the female generative ducts are represented by oviducts (Müllerian), and in mammals the oviducts fuse in the middle line, constituting a median uterus, or parts originally distinct coalesce (third law).

Expressing the same laws in the terminology of pathology, the lecturer desired

to show that structural aberrations of animal bodies follow these principles. He reduced the laws to two: I. Correlation — *a*, hypertrophy (law 1); *b*, atrophy (law 2); II. Coalescence (law 3). "Correlation leads to abrogation of functions and gives rise to rudiments." Hypertrophy must be distinguished from simple overgrowth. True hypertrophy is "the enlargement of an organ beyond its usual limits as the result of increased function or of some unusual condition of the corresponding or correlated organ;" *e.g.*, the enlarged kidney in cases in which the fellow-organ has been destroyed, the enlarged fibula in cases of ununited fracture of the tibia. Corns are examples of hypertrophy resulting from intermitting pressure. The ischial callosities seen in some monkeys are pathological productions transmitted so as to become race-peculiarities. Simple overgrowth is illustrated by the overgrown nail of the great toe seen often in old bedridden females. The relation of hypertrophy and atrophy Mr. Sutton terms correlation. In the production of hypertrophy, function and blood-supply are inseparably united. The nutrient stream is thus diverted from another channel, causing atrophy of the organ supplied by it. Example: in the human foetus the tibia and fibula are of nearly the same diameter; and in the menobranchus, which uses its legs to paddle, the two bones are of equal thickness; but "when the water-animals began to take to the land, the weight of the body was far more conveniently transmitted to the ground by one bone than by two; the increased function led to increased blood-supply," and the tibia hypertrophied. The increased nutritive supply to the tibia, by causing diversion of the blood-stream, leads to atrophy of the fibula.

Mr. Sutton believes a division of animals into those that are males and females is due to the law of "correlation." The fact that hypertrophy is one of the causes of division of sexes he summarizes as follows: 1. In the lowest forms of animal life hermaphroditism is the prevailing condition. 2. Cross-fertilization in hermaphrodites is the rule, and may lead to a division into sexes within the limits of a single group (Myzostomida). 3. Sporadic cases of adult hermaphroditism are far more common in the lowest forms of animal life. 4. If in mammals both sets of

* Lancet, February 13, 20, and 27, 1886.

organs grow concurrently, the individual is sterile. 5. Both sets of organs grow equally to a definite period in embryonic life. 6. Reproduction in vertebrata, so far as is known, is impossible unless hypertrophy of one set of organs occurs.

Further illustrations of the wonderful correlation which exists between hypertrophy and atrophy were given, and the law announced that hypertrophy of one organ or set of organs leads invariably to atrophy of some other organ (from diversion of the nutrient fluid).

Lecture II. "The Inflammatory Process."—Inflammation was defined as *the method by which an organism attempts to render inert noxious elements introduced from without or arising within it.* These noxious elements are termed irritants. Vascular disturbance is the most important feature of the inflammatory process, but Mr. Sutton looks upon the functions displayed by active motile cells as the fundamental basis. The amoeboid movement, the power of ingestion, and the power of intracellular digestion of cells are detailed, illustrated, and proved to be functions utilized in the inflammatory process. The formation of giant-cells is due to the fusion of two or more cells,—leucocytes. In invertebrates they arise always around foreign bodies. Metschnikoff has shown that in the early stages of absorption of the tails of larval batrachians a large number of amoeboid cells are present, within which are seen remnants of nerve-fibres and fragments of muscle. In reality, leucocytes are engaged in devouring the tail of the tadpole. The same observer witnessed "contests between the white cells of the blood and bacteria in the daphnia, and, when one cell was not sufficient to attack the invading bacterium, two or more would fuse together, surround, digest, and thus rid the daphnia of the intruder." Sutton applies these facts to mammals. Leucocytes, it is well known, crowd around an irritant. In tubercle, leprosy, perlsucht, etc., the lesions swarm with bacilli. These organisms are often taken up by cells, and especially by giant-cells. The creation of the giant-cell is an effort of the blood-corpuscles to rid the tissues of noxious elements. Osteoclasts come under the same category.

Mr. Sutton then states the kinds of inflammation to be simple and specific. The first is due to the reaction that follows

mechanical, thermal, or chemical stimuli; the second, to a particular poison, as that of variola, glanders, tubercle, etc. The infective granulomata (tuberculosis, leprosy, syphilis, glanders, actino-mycosis, etc.) illustrate the reaction of the organism to a specific virus. The histological characters of these morbid formations are practically identical: "a soft tissue, made up almost entirely of round cells, very little intercellular substance, the presence of giant-cells, and in most of them a bacillus, or a fungus, is a constant feature." The infectiveness of this irritant is pronounced: it may be inoculated and cultivated. A study of the most important groups of the vertebrata proves to Mr. Sutton that the mode by which a piece of noxious tissue is encapsulated or cast out of the body is an illustration on a large scale of the process by which bacilli, bacteria, etc., are in some cases rendered inert by cell-activity. If the vitality of the organism is enfeebled and the number of invading micro-organisms large, the leucocytes cannot cope with them, and disastrous effects result.

The lecture closes with a happy comparison of the process to a battle. Briefly, it is as follows. The leucocytes are the defending army, the blood-vessels are the roads and lines of communication. Every composite organism has a standing army of leucocytes. When the body is invaded by bacilli, bacteria, or chemical irritants, information of the aggression is telegraphed by the vaso-motor nerves, and leucocytes rush to the attack: reinforcements and recruits are quickly formed to increase the standing army twenty or thirty times the normal standard. Cells die and are eaten by their companions: the slaughter is so great that the tissues are burdened by the dead bodies of the soldiers in the form of pus. In the cells bacilli in the various stages of destruction are seen. These dead cells, like the corpses of soldiers who fall in battle, later become hurtful to the organism, for they serve as breeding-grounds wherein the bacteria may germinate, and, like a pestilence and scourge, devastate the individual.

Lecture III. was on "The Etiology of Neoplasms." At the outset Mr. Sutton begs to have a discrimination made between tumors and the "curious medley" with which they are confounded. He defines a neoplasm as "a new growth characterized

by histological diversity from the matrix in which it grows: it is distinguished from inflammatory new formations by the variety of its forms, mode of origin, and the frequent inherent tendency it has to increase." He notes that it may more or less resemble the matrix-tissue, but certain features may always be detected that show their heteroplastic nature. Hyperplasia of organs and infective granulomata are not included in the above definition. At once the speaker makes that classification of tumors which is the most scientific,—an embryological one,—and then proceeds to substantiate the arguments of Cohnheim, using them in a more extended sense.

The grouping Mr. Sutton makes is as follows: (1) the mesoblastic group, including the connective-tissue growths; (2) the epiblast and hypoblast group, comprising adenomata, carcinomata, and papillomata; and (3) the teratomata, neoplasms containing tissues derived from the three embryonic layers. The truth of Cohnheim's theory depends upon the existence of persistent rudiments,—“germinal rudiments” Sutton calls them,—and in answer to the questions, Do they exist? and do we have any evidence to show they become tumors?—many facts are brought forth by the lecturer. He answers the last question first. If we acknowledge, as we do, that true cysts may develop from functionless ducts or “cyst-germs” (*e.g.*, cystic dilatation of the tubules comprising the parovarium), then the origin of solid neoplasms from rudiments should not be doubted. The existence of germinal rudiments (first question) is proved by the fact that islands of cartilage are found in the skeleton of the vertebrates in bony situations, which are almost always the seat of enchondromata. They may be demonstrated, often readily, in children and sickly animals. Further, moles and nævi are tumor-germs; a small nævus becomes an angioma frequently.

Admitting, after the study in mammals, the undoubted presence of the rudiments, Mr. Sutton states the course these rudiments may take. Three courses are open to them: (1) they may, later in life, undergo transformation into normal tissue; (2) they may remain quiescent throughout a long life; (3) irritation may stimulate them to abnormal activity. What is constituted by this irritation is not stated. If the origin of enchondromata, osteomata,

and angiomata from rudiments were admitted, it should be proper to make the application to other tumors. The anatomical location of the neoplasms is one of the most important points of the lecturer's argument,—that they are confined to regions of the body where the elements of which they are composed can be demonstrated.

The sarcomata are then briefly considered, and the lecturer is led to believe, from large study and also by the conclusions of Mr. Gould, that the round-celled sarcomata are the result of the irritation of micro-organisms or of a previous injury. He observed that sarcomata are found with greater frequency in those parts of animals exposed to injury, and that the inflammatory tissue exceeds normal limits, develops erratically, and plays the part of a tumor-germ. Apparently this is confirmatory of some recent observations of Formad, of Philadelphia, and Hall, of New York.

Mr. Sutton then discusses the second group of tumors, which, in their structure, in the relations of their cells to the blood-vessels, or rather to the lymphatics, and in their mode of development, resemble glands. A hyperplasia of the gland and a glandular neoplasm are distinguished by the absence of true gland-secretion in the latter. Moreover, gland-cells are separated from the blood-vessels by lymphatic spaces, while cancers are bloodless, but well supplied with lymphatics.

He then shows the analogy between the development of neoplasms and glands. The latter begin by a down-growth of the epithelium from the hypoblast or epiblast into the mesoblastic tissues. In a section of a foetal thumb at the fourth month, the several glands appear as flask-shaped diverticula. Later in life, irritation, local or otherwise, affecting the tissue may cause abnormal epithelial growths, which, rising above the general level, may produce a wart. On the other hand, the epithelial growths may dip into the sub-epithelial tissues, and on account of lack of formative development, either from decline of vigor or general constitutional debility, the new tissue never develops functionally, runs riot, and originates tissues of low vitality,—carcinomata. The conditions favorable to the development of carcinoma—debility, etc.—are absent in the young; hence in the young we have warts, in the

old, cancers. Cancers are rarely met with in animals other than man.

The third group of tumors are philosophically discussed, and data are presented of great interest. These tumors, as is well known, are congenital, and are remarkable for the variety of elements composing them. They are especially liable to occur in those situations where the three blastodermic layers are brought into direct continuity temporarily with each other during foetal life. These situations are indicated in embryo by a temporary "passage," and it is interesting to know that they (the situations) correspond with the position of the teratoma, or at least to cysts and tumors with mixed elements, in mature life.

He considers teratomata, therefore, not as curiosities; he "regards them as arising from pre-existing tubules or ducts, which in the normal development should become obliterated, but they may in foetal life dilate and become mixed with various other tissues in their immediate neighborhood, and, as they lie on the borderland of mesoblastic, epiblastic, and hypoblastic elements, they become incorporated with them, and form in many instances amorphous masses, and constitute one of the most powerful witnesses to Cohnheim's theory of 'tumor-germs.'" The relation of teratoid tumors to obsolete canals is illustrated in the tongue. The "lingual duct," the lecturer says, is the favorite seat of dermoid cysts about the tongue, and it is the remains or the seat of a large embryonic passage.

The lecturer then shows the resemblance in structure and mode of development between the thyroid gland and congenital coccygeal tumors (anterior). Congenital cervical cysts are treated of, and it is believed that they are repetitions of the so-called cervical sacs of monkeys.

The lecturer then concludes as follows: "It seems impossible to escape from the conviction that any one ambitious of becoming a scientific pathologist must first be a sound human anatomist; he must also acquire a tolerable knowledge of comparative anatomy and keep well abreast of the teachings in embryology. Having acquired a competent knowledge in these subjects, he will then, in spite of himself, become a firm believer in the fundamental principles of the grand doctrine of evolution."

SUICIDE IN ENGLAND AND FRANCE.

BY JOHN G. LEE, M.D.

ABOUT six months ago, Dr. William Ogle, the efficient Deputy Registrar of Vital Statistics for Great Britain, read a most interesting paper on "Suicides in England and Wales, in Relation to Age, Sex, Season, and Occupation,"* before the London Statistical Society. Recently, and quite opportunely, the French government has published figures of equal importance for 1884.† The alarming frequency of self-murder within the past few years, and the attention now devoted to the study of its phenomena by alienists, jurists, and moralists, would seem to render a comparison between these two countries of value.

Dr. Ogle, in his observations, which cover a period of twenty-six years (from 1858 to 1883, inclusive), records a total of 42,630 deaths by suicide,—a mean death-rate from this cause alone of 72 persons annually per million living inhabitants. The actual and proportional figures below the age of 15 years are insignificant, but from that age up to 65 suicides increase rapidly, reaching a maximum rate of 251 per million persons living between 55 to 65 years of age.

Massing all ages together, the voluntary deaths of males exceed those of females in the proportion of 267 to 100; the females outnumbering the males only between the ages of 15 to 20 years: the average rate by sex being 104 for men and 41 for women per million.

In the suicide-rate according to occupation, soldiers head the list in the enormous proportion of 1149 per million; and in general the death-rate was highest in such sedentary occupations as are carried on by the educated portion of the community, while for occupations involving rough manual labor, with exposure to the elements, it was low. Clergymen, for instance, show a suicide-rate of 139 per million, while among shipwrights and miners it was 96 and 74 respectively.

These English statistics show self-murder to vary very definitely with the seasons, forming a regular annual curve, in which the minimum was in December and the maximum in June.

* Vide London Lancet, February 20, 1886, pp. 357, 358.

† Rapport général du Ministre de la Justice sur l'Administration de la Justice criminelle en France et en Algérie, pour 1884.

Death by hanging was the favorite method; then in order of frequency come drowning, cutting or stabbing, poison, and shooting. In the selection by self-murderers of the means by which they will terminate existence, occupation is a factor of some importance. Members of the military, clerical, and legal professions, together with gentlemen of leisure, show a marked preference for fire-arms. Physicians, chemists, druggists, and photographers usually make choice of some one of the many poisons used in their business. To the fairer portion of creation drowning seems preferable to hanging, and both knife and pistol are discarded in favor of poison. Careful and deliberate man, desiring to end his life, chooses a poison sure and painless in its action. Emotional woman, ending her days in hysterical or hypochondriacal passion, takes with indifference any toxic which may be at hand. Another curious fact to which the British statistician directs attention is that "the idea of death in cold water appears repulsive in winter seasons, and that method of self-destruction is avoided."* For, if the year be divided into periods of six months each,—one from October to March, the other from April to September,—out of 1000 suicides committed in each period, there were in London, on an average of twenty years, 205 suicides by drowning in the warmer and only 177 in the colder period. So that even when about to seek death persons are not indifferent to considerations of comfort or discomfort.

It would also seem that the probabilities of self-murder are greater than most of us imagine; for, by his calculations, Dr. Ogle advances the startling theory that, out of every 119 young men who attain the age of 20 years, one will perish by his own hand.

Across the Channel, the voluntary deaths registered since 1851 down to 1884 amounted to the enormous number of 57,620, beginning with 3639 for the quinquennial period 1851-1855, and ending with 7572 in 1884; the actual and proportional figures having doubled since 1855, when the rate was 10 per 100,000 population living, to 20 in 1884.

As might be expected, the Department of the Seine (Paris) alone furnishes 1420

cases, or more than one-sixth of the whole number. Indeed, French statisticians have observed that the number of suicides in the provinces is in inverse ratio to the distance from the capital. To every 100,000 population living in towns of more than 2000 souls the suicide-rate is 27, while in the rural districts and smaller towns, where the population is more widely scattered, the ratio is but 16 per 100,000 inhabitants. Here it may also be remarked that recent returns made by the Registrar-General of England† show that the death-rate from self-slaughter "is governed to a large extent by the proportion of the urban element in the population." In the ten years 1871-1880 it was highest,—85 per million in Middlesex, and 81 per million in the counties of Surrey, Kent, and Sussex, which contain a large proportion of the metropolitan population.

Of the 7572 self-murders dealt with in the French report, 5964, or 79 per cent., were males, while only 21 per cent., or 1608, were females,—these figures establishing a ratio of 32 male suicides to only 8 by females to every 100,000 persons of the same sex,—proportions far greater than those given for England by Dr. Ogle.

Suicides in France appear to increase in lines parallel with age, the maximum being reached in the sixtieth year. In 169 instances the ages were not ascertained; in the remaining 7403 the ages were as follows:

Under 16 years,	67,	or	1 per cent.
16 to 21	"	331,	" 5 "
21 " 25	"	391,	" 5 "
25 " 30	"	465,	" 6 "
30 " 40	"	992,	" 14 "
40 " 50	"	1394,	" 19 "
50 " 60	"	1508,	" 20 "
Over 60	"	2255,	" 30 "

The judicial inquisition held in every case of suicide in France could not establish the civil status of 324 of those who sought refuge from the ills of life in self-slaughter, but of the others 2623 (36 per cent.) were bachelors, 3365 (47 per cent.) were married, and 1260 (17 per cent.) were widowers or widows. Three-fifths of these latter had children, and for those recorded as married the proportion is higher (63 per cent.).

Considered in connection with their

* A fact already commented upon by the writer in a paper read before the American Medical Association, St. Paul, Minnesota, June, 1882.

† London Lancet, March 20, 1886, pp. 558, 559.

occupations, the 7572 suicides are divided into six classes, the figures of which vary considerably from those noted in England:

Agricultural occupations	2376,—23	per cent.
Laborers and mechanics	2109,—28	"
Merchants (employers and clerks)	922,—12	"
Property-owners, capitalists, and professional men	993,—13	"
Personal servants	476,—6	"
Occupations not specified	696,—9	"

Neither does the suicide-rate in the French military service tally with that observed in England, being but 0.35 to every 1000 or 35 to every 100,000 men present with the colors.*

Months and seasons, however, do not present such marked differences, either with Dr. Ogle's observations or those of preceding years in France:

January, 629	} 1847, or 24 per cent.
February, 507	
March, 711	
April, 655	} 2201, or 29 per cent.
May, 781	
June, 765	
July, 790	} 2004, or 27 per cent.
August, 612	
September, 602	
October, 559	} 1520, or 20 per cent.
November, 506	
December, 455	

As in England, hanging is the popular method of self-destruction, 3303 (44 per cent.) persons having ended their lives at the end of a rope. Then follow—

Drowning, 2069,—27 per cent.

Shooting, 906,—12 per cent.

Asphyxia with charcoal-gas, 616,—8 per cent.

Jumping from heights, 219,—3 per cent.

Cutting or stabbing, 194,—2 per cent.

Poison, 146,—2 per cent.

Means not specified, 119,—2 per cent.

The causes which led these unfortunates to sacrifice themselves have likewise been made the subject of exhaustive inquiry by the proper authorities. Though the causes were not determined in 567 suicides, 2168

(31 per cent.) are set down to weakening of the mental faculties; 1785 (25 per cent.) are credited to illness and physical suffering; 1133 (16 per cent.) are placed to the account of dissipation and misconduct; family troubles are held responsible for 1031 (15 per cent.); and financial embarrassment and poverty for 888 (13 per cent.). It is also interesting to note that among the above-quoted grand groups 809 (11 per cent.) were set down as being due directly to alcoholism, while 229 cases were those of criminals.

These figures require no extended comment: they speak for themselves.

333 SOUTH TWELFTH STREET.

REMARKS ON LANOLIN.

Read before the College of Physicians of Philadelphia, April 7, 1886,

BY THOMAS G. MORTON, M.D.

ALTHOUGH the members may be familiar with the new substance, lanolin, introduced by Liebreich, I thought it might be interesting to exhibit a few specimens of this preparation from the wool of sheep. Those who have used it have been much pleased with its employment in the preparation of ointments for external application. It can readily be rubbed into the skin, and produces no irritation, and therefore would probably be valuable in massage. It is probable that substances combined with lanolin will be more readily absorbed than if prepared with other bases. One of the remarkable properties of lanolin is that it can be readily combined with water. I show you a specimen containing sixty per cent. of water.

I quote the following from the *American Journal of Pharmacy* for February, 1886:

"Under the name of lanolin, Professor Liebreich introduced the fat obtained from sheep-wool. One of its properties is to take up more than its own weight of water. Unna states that cooling ointments should contain large quantities of water. Dietrich, with a view to determine the quantity of water taken up by different salve-bases, experimented with twenty-one different bases at a temperature of 15° C., taking for each experiment 100 parts of the base. His results were as follows. Cosmoline took up 4 parts of water; lard, 15; benzoinated lard, 17; and lanolin, 105.

"Lanolin, as it now appears in the market, is a perfectly neutral base, and

* Étude statistique sur la Morbilité et la Mortalité dans l'Armée française (1875-1879), par le Dr. A. Marvand. Ann. d'Hygiène, tome x., 1883, p. 539.

hence is not apt to decompose any medicament which might be added. Lasser experimented with it on four hundred patients, and states that lanolin is readily absorbed by the skin, does not produce any irritation, and permeates the lower layers. Bachmann rubbed a ten-per-cent. iodide of potassium ointment, made with lanolin, into the skin for five minutes. After the lapse of half- or three-quarters of an hour, iodine was detected in the urine. The elimination of the iodine by the urine continued for fourteen days after several applications of the ointment. Lanolin was used by the ancients, and is mentioned by Ovid, Herodotus, Pliny, and Aristophanes."

I have received the following from Mr. McKelway, the druggist, who made the preparations shown to-night:

"All the published articles I have seen are very chary of any description of the detail of its manufacture. Liebreich patented his process in the United States in January, 1883, and the process patented by him is concisely stated as follows:

"He takes the suds from the washing of wool in the mills, submits it to the action of a centrifugal machine which separates the soapy, oily suds from the dirt associated therewith, decomposes the suds by an acid, whereby the acid and the saponifying alkali unite, and the saponified wool-fat is separated, combined with about one hundred per cent. of water; this is then thoroughly washed with cold water, then heated so as to separate the water and the wool-fat, and again combined with a definite proportion of water, and lanolin is the result.

"Or, he treats wool with alkaline water, producing his suds in that way, and then proceeding as I have already outlined.

"A much quicker and less complex way of making the article is to treat the wool directly with petroleum benzine; distil off the benzine, and the wool-fat remains; combine this with a proper proportion of water, and lanolin results. In his patent specifications Liebreich speaks of this process, but says it is objectionable because of the difficulty of getting rid of the benzine odor. In the exceedingly short time I have had to prepare what I have prepared, this shorter process was the only one that I could use, and the samples I present were so made.

"William M. Coates, Esq., the wool-mer-

chant, tells me that merino wool, clipped without the sheep being washed, contains the enormous proportion of sixty per cent. of this fat. I enclose samples of the wool. If you will twist very tightly together a number of filaments of it, you will be able to collect the oil on your finger-nail. I also enclose some of the same fleece from which most, if not all, of the oil has been extracted with benzine.

"I send, also, a sample of the oil, labelled 'wool-fat;' and also a jar of lanolin, made by me by mixing this same wool-fat, 100 parts, with water, 30 parts (it is so labelled); and also a sample of lanolin imported for me by Messrs. Lehn & Fink, of New York.

"The cost-price of the imported lanolin is now, in large quantities, \$1.00 per pound; a very little while ago it was \$2.00 per pound. I believe it will ultimately be about as cheap as lard.

"When it is considered that all wool averages about forty-five per cent. of its weight of this fat, that it has all to be removed before the wool can be manufactured into fabrics, that up to this time it has had no value, that the process for its extraction is not a very expensive one, and that lanolin is thirty per cent. water, I think you will be convinced that lanolin will certainly be as cheap as lard as soon as competition in methods of extraction and in supplying have an opportunity to affect its price.

"Billions of pounds of this wool-fat have hitherto been thrown away every year.

"If lanolin is what it is claimed to be therapeutically, a new and immense industry opens to the world."

The *Therapeutic Gazette* of March 15, 1886, speaks as follows of the practical uses of lanolin:

"From his investigations of the composition of the cholesterine fats found in keratinous tissue, Dr. Oscar Liebreich (*British Medical Journal*, February 13, 1886) conjectures that the absorption into the skin would be best in the case of those fats which have their origin in the keratin-bearing substances, as hair, epidermis, etc. The old theory, that the skin was only oiled from glandular secretion, did not harmonize with these researches; and lanolin, upon his suggestion, is now being tested as to its efficacy in therapeutics as a new basis for salves and ointments. It is of impor-

tance to add other ingredients to make it more pliant, as it is too sticky a mass in itself to be employed alone; and from many trials which Dr. Liebreich has made with different substances—as vaseline, paraffine ointment, glycerin, oils, and fat—for this purpose he has found the latter by far the best, as the others generally interfere with the absorbing qualities of lanolin. On exposure, the upper surface of lanolin, and of all lanolin salves and ointments, becomes darkened, due to the evaporation of water, and not to its decomposition.”

Speaking with Dr. Leidy with reference to lanolin, he said that the skin of the sheep has an enormous number of sebaceous glands, and that he was not surprised at the amount of fat taken from the wool. The usual way of making mercurial ointment—by rubbing up the mercury with mutton suet—is a rather troublesome and tedious proceeding. If lanolin be used, it can be made as perfectly in thirty or forty minutes as by the longer process. It is said that the 0.001 per cent. of bichloride of mercury with lanolin rubbed upon the skin can be tasted in the mouth in thirty minutes.

[After the reading of the preceding paper, Dr. Keen remarked, “I have used lanolin in several instances during the last week or ten days. One case was that of a child, eight years of age, with an enlarged gland under the jaw, the size of an English walnut. I prescribed iodine, two grains to the drachm of lanolin. I saw the child a week ago, and the gland had almost entirely disappeared. This was a more rapid disappearance than I have ever seen from other iodine applications. This is the only case in which I have had any results, although I have used it in a number of instances and like it very well.”]

A CASE OF ENCAPSULATED PELVO-PERITONITIS, DUE TO TUBERCULAR ULCERATION IN DOUGLAS'S CUL-DE-SAC, WITH PERFORATION INTO THE ILEUM, VAGINA, AND RECTUM.

Read before the Clinical Society of Maryland, March 19, 1886,

BY W. J. JONES, M.D.,

Resident Physician to Bay View Asylum.

E. Y., colored, aged 22 years, came into the hospital department of Bay View Asylum on January 20, 1886, with the following history. She had led the life of a prostitute, and was addicted to all sorts of dissipation. Four months before her entry into the hospital a cough had developed, with loss of

flesh, fever, and night-sweats, though the latter had not been constant. One year prior to her sickness she gave birth to a child, which only lived a short time, and since that she had been very irregular in her menses until the last six months, when they had ceased altogether. There was a profuse purulent discharge from the vagina, which commenced a short while before her entry into the hospital, and she had suffered a good deal of pain in the lower part of her abdomen. There was slight cough. Examination of the lungs revealed a slight broncho-vesicular respiration at the apices. Heart-sounds normal. Palpation of the abdomen gave no evidence of any internal enlargements. No history or evidences of syphilis.

On January 22, patient was examined per vaginam. The urethra, when pressed upon, yielded no discharge; meatus normal. A profuse, purulent, fetid discharge exuded from the vagina, the mucous membrane of which was pale. The cervix was elongated, conical, indurated, and drawn considerably to the left side. Nothing was found in the uterus to account for the discharge, nor could any openings into the vagina be made out. The uterus was bound down and very slightly movable. Considerable induration was felt to the left of the cervix. The urine was examined, and found free from albumen and casts. The diagnosis of pelvic abscess was made. Tonics, stimulants, and nutritious diet were freely administered; but they failed to be of any benefit.

When examined on February 1, emaciation was more profound, hectic and night-sweats constant, and the purulent discharge from the vagina still continued. Vaginal injections were given twice daily.

On February 14 a profuse diarrhoea began. The stools were purulent and very fetid. Much pain was felt in the lower part of the abdomen, for which two-grain opium suppositories were given every four hours. All conditions increased in severity, and the patient died on the 8th of March, apparently from exhaustion.

The autopsy, made by Dr. Councilman, revealed the following. Body small, slightly built, and much emaciated. Miliary tubercles and areas of caseation were found scattered through both lungs, the caseation more pronounced in the apices. On both pleuræ scattered miliary tubercles. Bile-duct tuberculosis of the liver. Spleen enlarged, and contained numerous large tubercles. On examination of the intestines, the omentum and three loops of the ileum were found to be tightly adherent in the pelvis. The cavity of the pelvis was entirely shut off from the general peritoneal cavity by these adhesions. The general peritoneum contained a few tubercles, but no adhesions or evidences of inflammation. The adherent omentum and ileum were tied and removed, together with the pelvic

viscera. On examination, there was an abscess-cavity the size of an orange, filled with stinking pus, in Douglas's cul-de-sac. The pus contained numerous shreds of necrotic tissue, and the walls were sloughing. A large slough was found adherent in the cavity, which was recognized as the attached omentum. The cavity was enclosed by the adherent intestine and omentum and the ligaments. There was an opening from the abscess-cavity into the rectum which would admit a small pencil, and a smaller opening into the vagina at the apex of the posterior cul-de-sac. The uterus was enlarged, the mucous membrane thickened. Both tubes very much enlarged, and filled with a caseous, necrotic tissue. A small opening was found from the abscess into the ileum. In the ileum, below this opening, were numerous ulcers, easily recognized as tubercular in character. In the right vulvo-vaginal gland was a small abscess. There was no involvement of the recto-vaginal connective tissue.

This case presents several points of interest. Next to inflammation around the vagina and uterus not involving the peritoneum, the most frequent form is the inflammation of the pelvic peritoneum. If we could judge from post-mortem examinations alone, this latter would seem much more common than the former, as it always leaves evidences of its having existed in the fibrous adhesions so often found here on autopsies. These adhesions, though often a source of danger from constriction, sometimes play a most conservative part in enclosing an exudation and shutting it off from the general peritoneal cavity. The exudation may be thin and watery in character, and have all the appearances of a cyst. The present case is somewhat similar to the one reported by the writer in the *American Journal of Obstetrics* for March, 1886. It is probable that in this case also the starting-point of the disease was a circumscribed tuberculosis of Douglas's cul-de-sac. It is possible, however, that it began from injury at the last puerperal period, and afterwards became tuberculous. That it was tuberculous is shown from the infection of other parts which evidently took place from it, as the ulcers in the ileum and the tubal tuberculosis. It is probable that the abscess did not take on its special fetid, necrotic character until the perforation into the rectum occurred.

DR. OLIVER WENDELL HOLMES will take the degree of Doctor of Laws at Cambridge on the 17th instant.

TRANSLATIONS.

THE BARK AND ACTIVE PRINCIPLES OF QUEBRACHO BLANCO. — MM. Eloy and Huchard, in an article on "The Bark and Active Principles of Quebracho Blanco," published in the *Archives de Physiologie et Pathologie* for April 1, 1886, arrive at the following conclusions. The bark of Quebracho blanco furnishes four active substances differing from one another in symbols, physiological and toxic properties. The active principles of quebracho modify only slightly general sensibility of mammalia (guinea-pigs, rabbits, dogs). Quebrachine, hypoquebrachine, aspidospermine, pure, do not influence general sensibility, but the residuary products do, apparently. The phrenic nerve was more susceptible to galvanic stimulation after aspidospermine had been administered than after quebrachine. Motility is affected in various ways. In strong doses, aspidospermine causes convulsions; in small doses, fits of trembling; in massive doses, rapid paralysis. The most remarkable phenomena observed in the animals experimented on are hoarseness and aphonia, especially in guinea-pigs; it may be attributed to paralysis of the extensor muscles of the vocal cords. Quebrachine causes muscular paralysis more rapidly and more evidently. Hypoquebrachine and aspidospermatine are analogous in action to quebrachine, but less evidently so than aspidospermine. The residuary products provoke thorough and rapid paralysis. Four or five minutes after a hypodermic injection, paralysis attacks the extremities of the limbs, rapidly gains them entirely, and alternates with tonic convulsions. The circulation is not modified either by residuary products or by hypoquebrachine or quebrachine; but the heart-beats are slowed under the influence of aspidospermine, and quickened after injections of aspidospermatine.

MM. Eloy and Huchard consider that it is practically important to repeat previous researches concerning the action of quebracho upon respiration, inasmuch as its bark is recommended for different kinds of dyspnoea. Quebrachine does not alter either the rhythm or the depth of the respiratory movements; neither do the residuary products of aspidospermatine. Hypoquebrachine slightly modifies them. Aspidospermine, on the contrary, increases

the amplitude of respiratory movements in the proportion of one to five in eight or fifteen minutes. A moment afterwards the rhythm is increased, and continues so during two, three, and even four hours: it is not transitory, like the increase in amplitude. If the dose is increased or not eliminated, arhythm occurs, and the depth or amplitude of the movements is lessened. Aspidospermine has a greater influence on the frequency of costal respiration than on abdominal. It is, therefore, of all the active principles of quebracho, the greatest modifier of the respiratory movements.

All the active principles of quebracho modify the temperature. The residuary products raise it; but this increase of temperature seems to be due to asphyxiation. The aspidospermine which is currently sold lowers the temperature from two to three degrees in a space of from thirty to forty minutes; aspidospermatine, from three to six degrees in nineteen minutes; hypoquebrachine, the same. Of all these substances, quebrachine is the most antithermic. Venous blood is black when the animal is asphyxiated by the influence of residuary products; reddish or red under the influence of quebrachine, hypoquebrachine, aspidospermatine, and aspidospermine: that is to say, the substances that lower the temperature. This coloration is comparable to that observed in animals which die whilst the interchange of gases is arrested. These substances cause hypersecretion of the kidneys, and of the intestinal and salivary glands. Hypoquebrachine and aspidospermine produce diarrhoea and diuresis; quebrachine increases diuresis; aspidospermine increases salivary secretion in guinea-pigs and rabbits. The residuary products have the same action on the intestinal glands and the kidneys. All these substances can cause death. The residuary products are the most toxic; next in order are quebrachine, aspidospermatine, and, lastly, aspidospermine. Death results either from asphyxia or from paralysis of the muscles of respiration when the doses are considerable; when the dose is smaller and elimination only partial, death ensues more slowly, and is due to arrested interchange of gases. By administering suitable doses of these principles, the residuary substances excepted, useful therapeutic effects may be obtained. It must

be remembered that quebracho is not an inert substance. If it does not realize all that enthusiasts assert in its favor, it nevertheless has certain merits.

These researches were undertaken by MM. Eloy and Huchard to verify what had been said by previous investigators; also to study the properties of each active principle of the bark. The same investigators are engaged in further researches on quebracho, which will shortly be published.

AN APPARATUS FOR MEASURING THE AUDITORY ACUTENESS.—M. D'Arsomal's apparatus for measuring auditory acuteness differs from other similar instruments in two particulars: it is much simpler, and indicates directly the proportional intensity of sound. It is composed of a sound-producer consisting of a small tuning-fork giving the normal "la" (eight hundred and seventy vibrations), kept at work by an electro-magnet placed according to the disposition adopted by M. Mercadier. A single Leclanché element is sufficient to keep it in motion. A telephone is placed in communication with the two ends of the thread forming the coil of the electro-magnet. The telephone is thus traversed by the extra *courant de rupture* (interrupted current) at each vibration of the tuning-fork. The tension of this extra current is much greater than that of the battery, and causes the telephone to vibrate intensely in unison with the tuning-fork. In order to lessen the intensity of the sound in the telephone, it is necessary to pass a current along a glass tube full of water. By plunging a metallic stem into the water, the length of the column of water traversed by the current is increased until the intensity of the sound is reduced to its minimum and is scarcely perceptible. The strength of the extra current, and consequently the intensity of the sound, are in inverse proportion to the length of the column of water of the graduated which lessens the sound. The length of the water-column gives the degree of the auditory sense tested.

THE LEHIGH VALLEY MEDICAL ASSOCIATION will hold its Sixth Annual Meeting at Glen Summit on Wednesday, June 16. The annual address will be on "The Frequent Dependence of Diseases of the Ear upon Catarrhal Disease of the Nose," by Charles H. Burnett, M.D., of Philadelphia.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JUNE 12, 1886.

EDITORIAL.

THE STATE SOCIETY.

THE session of the State Society at Williamsport was fairly well attended, the programme interesting, the proceedings admirably directed by an experienced and impartial presiding officer, and an attentive and efficient Committee on Arrangements did all in its power to make the meeting a success; and in these features the thirty-seventh annual convention may be said to have been satisfactory when compared with previous meetings of the Society. And yet it must be admitted that in several points it was open to criticism. In the first place, what was intended to be one of the features of the meeting—the reports from the various County Societies—has almost disappeared from the proceedings; it was introduced in the midst of the rush of routine business during the first morning session. We would urge the proper officers to correspond with the various County Medical Societies and request them to make it a part of the duty of their President and Secretary to make out an annual report and send it to the Secretary of the State Society one month in advance of the meeting. Abstracts of these reports should then be prepared, and an entire morning or afternoon or evening session devoted to their reception and discussion. Reports from the Censors of the thirteen districts should also be presented and read. We earnestly hope that at the next meeting this will be suitably provided for by the Committee on Arrangements.

As regards the length of the meeting, three full days are not too much to be given to the consideration of the subjects presented. The fact that the work of the recent

session was practically condensed into two days was very unfortunate, and even unfair, to the readers of papers, since there was evidently no calculation made for time to be devoted to discussion; and the discussions which did occur so encroached upon the time that several papers especially prepared for the session had to be read only by title. We would take the liberty of recommending that a Committee be appointed on Scientific Work, who should arrange this portion of the programme,—all papers proposed to be read to be submitted to this Committee for its approval or rejection a month before the meeting. Such a Committee has recently been formed in the Philadelphia College of Physicians and in the American Surgical Association, and has been for some time in operation in the Royal Medical and Chirurgical Society of London. With such a censorship over the proceedings, more time would be secured for the discussion of questions of importance, and a better opportunity afforded for a well-digested and authoritative expression of opinion upon disputed points. The Committee on Programme might select some papers that are to be read in full, and appropriate a certain time for their discussion; others might be read in abstract or by title, and have no additional time specially devoted to their consideration except by vote of the Society.

Efforts should be especially directed towards having the different parts of the State represented by papers as far as possible, in order that no single county or district shall apparently monopolize the programme. A little correspondence before the meeting would easily prevent such an occurrence. As an instance of the undue haste manifested in the proceedings, the Nominating Committee, in its report, violated the By-Laws in naming as delegates to the American Medical Association several who were ineligible because not present at the meeting, and one person, at least, who is not a member of the State Society. The fact

that the report was accepted without examination shows that the Society was as derelict as the Committee,—although the Society, on the last day, did the best it could to rectify the mistake by authorizing its President and Secretary to fill the vacancies.

While appreciating the compliment of the reception and banquet tendered by the Lycoming County Society at the Park Hotel, which in itself was most pleasant and agreeable, we believe that the Society should in future adhere to the Standing Resolution (Transactions for 1870, page 23) and have an annual subscription dinner. We hope that at the meeting at Bedford the different portions of the State will be more fairly represented both on the floor and in the programme, that the County Societies and Censors will be assured of a proper hearing for their reports, that sufficient time will be allowed for discussion of important subjects, that an annual dinner will be held, and that the entertainments will not be allowed to encroach upon the serious business of the Society.

HYDROPHOBIA.

THE papers on hydrophobia read before the State Society had for their motive a laudable desire to allay the popular scare on this subject which had been excited by the almost daily sensational accounts published in the newspapers. At the same time they each gave evidence of a strong bias, which greatly detracted from their influence and revealed more of a controversial than of a judicial spirit. To show the impression that they made, we may be pardoned for quoting the newspaper report of the meeting, which says that the lecturer "as good as said that Pasteur was a fraud." Of course Dr. Dulles did not say any such thing, nor is it possible that he could even entertain the thought that Pasteur is not as honest as he is earnest in his investigations. It

merely shows how cautious and judicial should be our tone in considering vexed questions before a mixed audience in a public place and where our utterance has a quasi-official character.

With reference to the value of Pasteur's researches, it is evident that he is manfully and scientifically working out a problem which he confesses is as yet unsolved, although every day approaching nearer a solution. Many able observers declare themselves satisfied with the evidence already adduced. Vulpian declared to the Academy that "Pasteur has created a method of treatment by means of which one may with absolute certainty prevent the development of rabies in a man who has been bitten by a mad dog. I say 'with absolute certainty,' because, after what I have observed in M. Pasteur's laboratory, I cannot doubt." That by Pasteur's method of inoculation dogs are rendered insusceptible to the effects of inoculation with rabic virus we believe is now generally accepted as a demonstrated fact. Nearly a thousand human beings supposed to have been bitten by mad dogs have now been treated by essentially the same method. Of the greater part of these it can only be said that the inoculations have been made too recently to determine whether they will escape entirely or not, on account of the varying length of the period of incubation in hydrophobia; but it is stated that out of nine hundred and sixty-five inoculations, there has been (excluding the Russians bitten by wolves) but one fatal case. Is this a coincidence? "Six hundred and eighty-two thousand five hundred francs have already been contributed towards the establishment of an institution for the inoculation of persons bitten by rabid animals. Is all the world gone mad, that money is lavished upon a chimera? It is as unscientific to deny upon insufficient evidence as it is to assert without proof. 'Tell American sceptics to wait,' says Pasteur.

'Doubt is wise and healthful; but doubters must not expect all their doubts answered at once. Recall Jenner. Could he have satisfied his opponents while he stood on the threshold of his experience? Let your last word to them be *wait!* and if they continue to doubt, let them come to me and judge for themselves.' '*

THE ASSOCIATION OF AMERICAN PHYSICIANS will hold a preliminary meeting for organization June 17, in the Army Medical Museum building, Washington, D.C. The Constitution which will be submitted at this meeting provides that an annual session shall be held in the month of June, in the city of Washington, D.C. It provides that the proceedings shall consist of (1) discussions on subjects of general interest in the departments of medicine and pathology. These shall have been provided for by the appointment at the previous meeting of certain members, two upon each subject, to be called Referee and Co-Referee, to open the debate on the subjects selected for discussion. (2) Original communications. (3) Demonstrations of gross and microscopic preparations, of apparatus and instruments. The active membership is limited to one hundred. "Physicians of sufficient eminence to merit the distinction may to a number not exceeding twenty-five be elected honorary members." The programme of the meeting, which is to continue for two days, contains a number of presumably interesting and valuable papers, among the authors of which we find the names of S. Weir Mitchell, William Osler, James Tyson, E. T. Bruen, and Morris J. Lewis, of Philadelphia; Francis Delafield, W. H. Draper, William M. Polk, of New York; Reginald H. Fitz, of Boston; W. H. Welch and W. T. Councilman, of Baltimore; J. T.

* From Dr. Osgood's Paris letter written to the *Boston Medical and Surgical Journal*, Nos. 21 and 22, which all who are interested in this question should read closely and attentively.

Whittaker, of Cincinnati; F. Peyre Porcher, of Charleston, South Carolina; and H. N. Lyman, of Chicago. A report of the meeting will appear in the next issue of the TIMES.

LONDON CORRESPONDENCE.—With our present issue we resume the publication of a monthly London letter. The name subscribed to the communication will be sufficient assurance to our readers that the correspondence will fairly represent current medical thought in the world's metropolis.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

THE Easter holidays seem to have every year more and more honor paid to them. The medical schools have long taken a vacation then, but nowadays even the societies show a tendency to avoid the week before and the week after Easter. Parliament adjourns, and the very numerous and influential class whose movements are governed either from choice or necessity by the parliamentary session are scattered about the country, resting and speechifying: consequently the world of London was very quiet during the last fortnight of April. During the fortnight which has just passed, however, everybody has swarmed back to London, the medical schools have begun the work of the summer session, and the medical societies are in full swing. Most of these societies are very much troubled by a plethora, I will not say of material, but of papers. At the Royal Medical and Chirurgical Society there is a Committee of Reference which inspects all papers before they can be put down to be read at a meeting, but at the other societies there is no such check upon long-winded writers, who often inflict an immense mass of irrelevant details upon their audience: it is difficult to obtain redress. Occasionally, when a well-known bore is found to be in full swing, he finds himself suddenly inaudible owing to a general fit of coughing accompanied by shuffling feet. But this extreme protest is not often made; and more commonly when a meeting, instead of ending at ten, according to regulations, is prolonged till nearly eleven, members show their disapproval by walking away, so that the unfortunate readers of papers which have been put down for the end of the evening are apt to find their audience not only impatient, but

small. Nevertheless, the fact remains that a great deal of the best clinical and pathological work done by the younger men is taken to the societies, and eventually published in their Transactions; extensive publicity is, however, immediately obtained by means of the reports in the weekly medical journals.

At the last meeting of the Royal Medical and Chirurgical Society, Mr. Ballance and Dr. Walter Edmunds, who both belong by education to St. Thomas's Hospital, reported the results of some experiments on the ligature of large arteries in their continuity. Owing to the Vivisection Act, which puts great difficulties in the way of any experimenter who is compelled to make use of living animals, the experiments were performed abroad, in the laboratory of Professor Birch-Hirschfeld at Leipsic. They found that when the lumen of the vessel was completely or almost completely obliterated by the ligature, it was unnecessary to rupture the inner coats of the artery; if suppuration was prevented, a good catgut ligature held for one month, and a kangaroo-tendon for two. The contention of the authors, that it was not advisable for the surgeon to rupture the inner coats of an artery which he was called upon to tie in continuity, did not meet with general acceptance: both Mr. Savory and Mr. Holmes, two of our most fluent and telling surgical orators, argued against the conclusion, urging that, though it might not be always necessary, it was always advisable, to rupture the coats, and made light of the fear of secondary hemorrhage.

The Ophthalmological Society discussed the subject of exophthalmic goitre last week at great length, but no very novel circumstances came to light. The paper contributed by Dr. Samuel Wilks was decidedly the most interesting, but even he had little new to say: his very strong recommendation of belladonna is worthy of note, for he is not one much given to praise drugs of any kind. Dr. Samuel West and Dr. Hill Griffith, of Manchester, contributed statistical papers, and Dr. Hughlings Jackson had something to say on the general pathology of the disease; he seemed inclined to accept the theory that the primary lesion affected the restiform body, though I cannot suppose, as did some of his hearers, that he would propose to ask the surgeons to operate on that region in the hope of curing the disease.

Sir Henry Roscoe, the eminent Professor of Chemistry in Owen's College, Manchester, and one of the members of Parliament for that city, has persuaded the Local Government Board (which many years ago absorbed the Board of Health) to appoint a Commission to investigate M. Pasteur's method of preventing the development of rabies after a bite by a rabid dog. Sir Henry Roscoe is the Chairman of this Commission, and the other members are Professor Burdon Sanderson, Sir James

Paget, Dr. Lauder Brunton, Dr. Richard Quain (of the Dictionary), and Mr. Fleming, Principal Veterinary Surgeon of the Army. The Commission appointed Mr. Victor Horsley, the Professor-Superintendent of the Brown Animal Sanatory Institution, to be Secretary. Sir Henry Roscoe, Dr. Brunton, and Professors Sanderson and Horsley spent their Easter holidays in Paris, where they were very courteously received by M. Pasteur and his assistants, who placed all the facts he has accumulated at their disposal. He also presented the Commission with two rabbits inoculated by trephining with the hydrophobic virus which he uses. The members of the Commission who went to Paris have returned, bringing with them these animals, who have since, I understand, developed the symptoms of general paralysis which are considered by M. Pasteur to be characteristic of rabies when inoculated into rabbits. Some inoculation experiments will be made with the spinal cords of these rabbits, and a thorough search will be made for the micro-organism described by M. Fol, of Geneva, as characteristic of rabies. Mr. Horsley is an energetic worker, and, though a young man, already an experienced experimenter, and there is therefore good reason to hope that the English Commission will throw some valuable light on this vexed question.

Rabies is said to be still very prevalent in England, and the new Commissioner of Metropolitan Police has issued a fresh muzzling order. Unfortunately, his authority does not extend beyond the metropolitan area, so that in the suburbs and home counties the regulations against rabid dogs are not systematically applied. We have had no cases of hydrophobia, however, since January: so that some good has been done.

A few years ago the Grocers' Company, which is one of the wealthiest of the City of London companies, devoted a large sum of money to the foundation of prizes and scholarships for the advancement of scientific research. A thousand pounds was expended annually by this Company in scholarships. Two of the scholars, Dr. L. C. Wooldridge and Mr. Alfred Lingard, delivered lectures at the University of London shortly before Easter on the subjects of their research. Dr. Wooldridge, who is Demonstrator of Physiology at Guy's Hospital, had to report some very remarkable results of his study of the mode of coagulation of the blood. By the use of very low temperatures he had isolated from the serum a body which, when injected into the circulating system of another animal, produced almost instantaneous general clotting. He exhibited a clot thus produced filling the aorta of a rabbit: the animal had died a few minutes after the injection of the coagulating material. The amount of this substance present in the blood in health is very much increased in septicæmia and is

diminished in starvation. Both these observations appear to have some pathological importance: the increased quantity present in septicæmia may be at least one of the causes which favor the extensive thrombosis observed in pyæmia. I use the word "septicæmia" in the sense which Dr. Wooldridge probably attaches to it, as signifying, that is to say, toxæmia produced by the presence of septic material in the blood, whether derived from without the body or from suppurating centres within. His observation that the quantity of this coagulating material in the blood is diminished by starvation and increased by a diet containing much fat may directly afford a practical clinical hint. If Dr. Wooldridge is right, then the treatment of aneurism by almost total withdrawal of food must be mistaken. The object of the treatment is to reduce the volume of the circulating blood; but if at the same time it diminishes the coagulating power of the blood, it must do more harm than good. On the contrary, if it should turn out that Dr. Wooldridge is right in supposing that fat has a greater power than any other kind of food in increasing the quantity of this coagulating substance in the blood, the fact may suggest some valuable reflections as to the best diet in old age when gangrene is threatened, or after pregnancy when thrombosis appears imminent.

Last month everybody was very much interested in and had formed his own opinion about the "Pimlico Mystery." The case presented one or two points of medico-legal interest. When stripped of the somewhat prurient details which gave it a special interest to a certain section of the public (it is a sad commentary on our boasted morality and civilization to have to say that the court was crowded with city matrons), the question which the jury had to decide was whether the death of a hypochondriacal grocer was due to chloroform, and, if so, by whom the drug was administered. The expert evidence left no doubt that death was due to a large dose of chloroform swallowed shortly before, and the facts of the case showed that the fatal dose must either have been taken by the deceased himself or administered to him by his wife. Expert evidence was called to show that it was almost impossible for a would-be murderer to administer liquid chloroform by the mouth without arousing the victim; it was also stated that it was very difficult, especially for an unskilled person, to administer chloroform by inhalation during sleep without arousing the sleeper. The deceased's wife was with him at the time of his death, did not call the inmates of the house till long after, and had previously entered into some sort of understanding with a young Wesleyan minister to marry him if perchance her husband were to die. This young man had purchased the chloroform for her, and

altogether the circumstances were very suspicious. The jury, however, acquitted the widow, apparently on the theory put forward by the judge that the man drank it himself when half under the influence of some of the narcotics with which he was being treated on account of necrosis of the jaw.

The list of names sent up for election by the Royal Society includes those of Surgeon-Major Timothy Lewis, Dr. Pye-Smith, and Mr. Victor Horsley. I regret extremely here to record that Dr. Lewis, who was the Assistant Professor of Pathology in the Army Medical School at Netley, died on May 7 of pneumonia, after a short illness and before his formal admission as a Fellow of the Royal Society. He was well known for his work in Calcutta with reference to the *Filaria sanguinis hominis*, and in conjunction with Dr. Cunningham on cholera. Dr. Pye-Smith was until a few years ago lecturer on Physiology at Guy's Hospital, and is now one of the physicians there: his election has come rather as a surprise. But the greatest surprise was the choice of Mr. Victor Horsley, who will be one of the youngest Fellows of the Royal Society: to him I have already had occasion to refer. He has done a great deal of first-rate original work, especially in connection with the functions of the thyroid gland and the localization of function in the brain. Still, it is very surprising to find so young a man chosen, now that Professor Sharpey, the great believer in young men, and in his time all-powerful in the Royal Society, has gone.

Dr. Oliver Wendell Holmes is being fêted by literary society here. His portrait appears in our illustrated papers, and everybody seeks to do him honor. Unfortunately, he does not appear disposed to give his professional brethren any taste of his after-dinner quality, and declined an entertainment arranged in his honor by the medical profession in Liverpool.

DAWSON WILLIAMS.

May 15, 1886.

PROCEEDINGS OF SOCIETIES.

THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

(Reported by WILLIAM H. MORRISON, M.D.)

THE Association held its Eighth Annual Session May 27, 28, and 29, 1886, in the hall of the College of Physicians, Philadelphia.

The meeting was opened by a short address by the President, Harrison Allen, M.D., who congratulated the Society upon the great advances made in laryngology, and directed attention to the valuable contributions made to it by Americans, and especially by the Fellows of this Society. Laryngology satisfies more nearly the requirements of exact science than almost any other department of medicine.

The first paper of the morning, by Harrison Allen, M.D., of Philadelphia, was entitled:

TWO INSTANCES OF ADENOID DISEASE OF THE ROOF OF THE PHARYNX WHICH EXHIBITED UNUSUAL FEATURES.

The first case was that of a boy, aged 5 years, who came under observation in January, 1884. Examination showed the roof of the mouth to be elevated; the irritability of the parts was so marked that the slightest attempt to depress the tongue was followed by gagging; the nostrils were filled with a mucoid discharge. The history of the case was that during the day there was no special difficulty with respiration, but at night the breathing was greatly impeded. After the child fell asleep, the respirations became labored; after three or four inhalations, breathing would cease, and the child would open its mouth and make strenuous efforts to inspire; this would awaken the child, and a forced inspiration would ensue; it would then fall asleep, and the same phenomena would be repeated during the entire night. During an attack of whooping-cough the symptoms became much exaggerated, and to them was added irregular action of the heart. Hypertrophy of the adenoid tissue of the pharynx, with unusual reflex symptoms, was believed to be the cause of the symptoms.

January 29 this tissue was removed, but the difficulty in respiration continued. The nasal cavity was now free from any obstruction. A portion of the tonsils, which were enlarged, was then removed; still there was no improvement. After careful investigation, it was found that during sleep the tongue fell backward. It was directed that, when the attack came on, the child should be turned on his face: this was done, with immediate relief. It was so arranged that the child should be under constant supervision during the night, so that when the interference with respiration occurred he could be turned upon his face. This plan has been followed by great improvement. The boy prefers to lie upon his side, but when a paroxysm comes on he turns on the face without awakening.

The second case was that of a girl, 6 years of age, in whom there were evidences of imperfect osseous development; the irritability of the pharynx was so excessive that no satisfactory examination could be made. The child had already been operated on by other surgeons for the removal of morbid tissue. Under ether, the naso-pharynx was found to be much smaller than normal and highly arched in form; the posterior slope of the roof was occupied with an adenoid growth, which was removed, partly by the galvano-cautery and partly with the scissors. Two weeks later, the patient was again etherized, and the thickened membrane cauterized with the galvano-cautery; the child was then given internally proper remedies for the per-

verted nutrition of the osseous system, and locally iodine and glycerin were applied: under this treatment improvement was shown. The child appears to have completely recovered.

DISCUSSION.

In the discussion which followed, Dr. Franklin Hooper, of Boston, related the case of a child 8 years old, of neurotic temperament, in whom breathing was obstructed, articulation defective, and hearing impaired since the age of three years. A large portion of adenoid tissue was removed from the pharynx, and at once there was improvement of articulation and in breathing; the hearing also improved after inflation with the air-douche. In the course of ten days after the operation the child developed chorea, which rapidly became intensified, assuming so severe a form as to prevent sleep and interfere greatly with alimentation. The ordinary remedies to produce sleep failed until urethan was used. After this the child had a good night's rest and immediately began to improve, and the chorea entirely disappeared.

Dr. Langmaid related a case in which attacks of dyspnoea in a child occurred which were relieved by the patient getting upon his hands and knees; the removal of the nasopharyngeal fibroma was followed by entire disappearance of the symptoms.

Dr. Seiler said that even small growths, too small to affect respiration, impair the singing voice, and especially interfere with the higher notes of the scale.

Dr. Allen closed the discussion. He believed that there was no danger from using the galvano-cautery after etherizing the patient, provided the patient were fanned vigorously for a moment or two in order to dilute the ether-vapor below the point of ignition.

Dr. J. Solis Cohen then presented the following paper, by Professor Ramon de la Sota y Lastra, M.D., of Seville, Spain, which, on invitation, he read to the Society.

LUPUS OF THE THROAT.

The following case, illustrating the difficulty of diagnosis, was described. A patient, who was also a physician, came to him in 1884, on account of an affection of the throat. He was then 60 years of age, much emaciated, reduced in strength, and with a clay-colored complexion. The disorder in the throat had existed about a year. He was able to swallow only milk and broths. Upon examining him, the tongue was found covered with psoriatic scales, the pharynx was lumpy and of a wine-red color, the right tonsil was the seat of an ulceration extending from the pyriform fossa below to the middle of the uvula, and involving half that structure. Its borders were red and swollen, its surface irregular and of a hard and elastic consistence. Some pain was produced by palpation, but no

bleeding. There was no trouble in talking or on coughing, and liquids were swallowed without difficulty. Breathing was accomplished with perfect freedom. The submaxillary glands were swollen. The patient had suffered from rheumatism, but no history of syphilis could be obtained. Taking into consideration the history of the case and the age of the patient, it was considered an ulcerated epithelioma, and this diagnosis was concurred in by the patient's physician. Nevertheless, mistrusting the testimony obtained, antisyphilitic medication with mercurials was tried, which caused such bad results that it was necessary to suspend it. He was then placed upon the use of iron and bitter tonics and such diet as he could take. The specific treatment was subsequently resumed; but the local lesion assumed so bad an aspect that it became necessary to give up the treatment. From the fact that the ulceration was unattended by pain, I began to have some doubts as to its epitheliomatous nature. Sodium arsenite in ascending doses was then prescribed, with a gargle of resorcin, and locally I applied iodoform to the ulcerated surface after it was washed with a solution of borax. For a month the ulceration continued to extend, and when I had lost all hope it stopped its progress and became covered with healthy granulations. Cicatrization went on, and was complete in three months. The scar is irregular, elevated and depressed, hard and soft, the posterior portion being adherent to the pharyngeal wall. The lingual psoriasis continued. Restoration to health has taken place. It is now eighteen months since the ulcer healed. With this result, I concluded that the case was one of lupus, and not cancer.

My experience with this and other cases of lupus of the throat has led me to conclude that the disease may make its appearance at any period of life. I have seen it more frequently in adults than in children, and more frequently in men than in women. I have been unable to obtain any information in regard to inheritance. I have not found that hard drinkers or smokers were more liable to suffer, nor have I found that great exertion of the voice or exposure to irritating substances, the application of the cautery or other agents, had any influence in its production.

I have never had an opportunity of observing the initial manifestations; but I have been able to detect the involvement of sound tissues later in the disease. Sometimes the mucous membrane assumes a purple color, and swells up and becomes granulated. Then one or two nodules may develop, and may attain the size of a pea. Sometimes they become prominent without any alteration in the appearance of the mucous membrane. They may remain superficial, or they may attack the mucous tissue and also the submucous tissue. Their form is rounded, and their surface is smooth. These nodules are distin-

guished by their rosy-red color from leprous tumors. Unlike carcinoma, the tumors are usually quite distinct. On pressure they present an elastic resistance. This is greater than the hardness of inflammation, but less than that of epithelioma. The parts on which the tumor develops become rigid, and the natural movement is diminished or lost, contrary to carcinoma, which usually produces sharp, lancinating pain, and to leprosy, which is generally accompanied with anæsthesia. There is in lupus no alteration of the sensitiveness of the part. After a shorter or longer period, the tubercle softens and becomes ulcerated. The ulceration assumes two forms. In some cases the tumor becomes excavated to a considerable depth, while in others it is more superficial. These ulcers do not bleed on pressure. The cure is difficult, and attended with the formation of scars. In some cases these ulcers develop in a slow way, while in others they start with astonishing rapidity. They may develop within a few days, or they may remain quiescent for months or years and then take on destructive action. The healing of the ulcer is followed by the formation of irregular scars, raised in some places, depressed in others; red in the former, white in the latter. Adhesions to surrounding parts take place. Cicatrization occurs slowly and is easily destroyed, but more or less infiltration remains.

In the cases of lupus of the throat which I have seen, the treatment employed in external lupus has been also found of service. I do not discard internal treatment, but use such remedies as are indicated by the general condition of the patient. This has an important influence upon the result of topical treatment. If the lupus be not ulcerated, I apply caustic substances. Up to a few months ago I used tincture of iodine. I have, however, found better effects from the use of lactic acid. I have used it in cases of lupus of the cheek and gums and also of the larynx. I have met with no inconvenience from its use except the pain, which varies in different cases if the lupus is ulcerated. I sometimes use the lactic acid; more frequently I employ a wash of borax and cover the ulcer with powder of iodoform. I always prescribe a gargle of a one-per-cent. solution of resorcin. Patients thus treated have always recovered after a greater or less time. In some cases the cure has probably been realized in the natural course of the disease rather than as a result of the therapeutic measures.

Professor Joseph Leidy, of Philadelphia, on the invitation of the Council, made a verbal communication upon

SOME INTERESTING POINTS CONNECTED WITH THE LARYNX AND ITS INTRINSIC MUSCLES.

The first point to which I shall refer is the aperture of the larynx. This aperture,

communicating with the pharynx, is a large oblique opening, bounded above by the summit of the epiglottis and laterally by the aryteno-epiglottidean folds. The lower portion is formed by the notch of the arytenoid cartilages. Laterally on each side, two eminences are quite prominent in the fresh larynx, an upper pair and a lower pair. The lowest pair is produced by the cornicula of the larynx, which terminate the summits of the arytenoid cartilages. The text-books state that immediately above these there is another pair of cartilages, the cartilages of Wrisberg. In my experience I have rarely found these cartilages decidedly developed in the white subject, and where a prominence does exist it is due to the presence of a group of glands: embedded in these perhaps a little cartilage may be found. In the negro the cartilages of Wrisberg are conspicuously developed.

The next point refers to the vocal cords, as they are usually designated. These are described as two elastic ligaments extending from the entering angle of the thyroid cartilage directly backward and upward to be attached to the vocal process of the arytenoid cartilage. Between these cords is the narrowest portion of the larynx, or the fissure of the glottis. While physiologically it is correct to speak of the vocal cord, yet anatomically it is not correct to speak of vocal cords. These bands are usually spoken of as the inferior thyro-arytenoid ligaments. There is another ligament extending between the thyroid and cricoid cartilage in front and extending back to the base of the arytenoid cartilages. This is described as the middle crico-thyroid ligament. This is connected with the upper border of the vocal membranes. This connection is very important. If the cricoid cartilage is broken or crushed, it must influence the action of the so-called vocal cords, for the vocal membranes are connected quite as much at the lower border to the cricoid cartilage as they are at the upper border to the thyroid cartilage.

The tension of the vocal bands is principally regulated by the movements of the muscles attached to the arytenoid cartilages. These are supplied by the inferior laryngeal nerve. Another muscle which may influence the movements of the vocal membranes is the crico-thyroid. This is supplied by a separate nerve, the superior laryngeal; though the reason why this muscle should be supplied by a different nerve has not been satisfactorily stated. The muscles which operate the arytenoid cartilage are the posterior crico-arytenoid, the lateral crico-arytenoid, and the arytenoid muscle. These muscles are sufficient to produce all the movements of the vocal membranes. Other muscles, that is to say, the aryteno-epiglottidean and the thyro-epiglottidean muscles, have been described, but in my experience the development of

these muscles is by no means uniform, and they are often rudimentary.

A vote of thanks was tendered Prof. Leidy for his communication. The paper was discussed by Dr. J. Solis Cohen, Dr. F. I. Knight, and Dr. F. H. Hooper.

Dr. J. N. Mackenzie, of Baltimore, exhibited an instrument for fracturing the nasal septum, which differed from the usual instrument employed for the purpose in being stronger and in having the handle at an angle to the blades, so as to give greater leverage.

Dr. Carl Seiler, of Philadelphia, exhibited an apparatus to be used in making sections of frozen heads. Sections were exhibited. He said that they might be electro-plated if desired, and preserved indefinitely, or wax impressions taken.

Dr. C. E. Sajous, of Philadelphia, presented a galvano-cautery handle, in which the wires were attached in the middle of the instrument, and explained a device for connecting the handles to the wires without screws.

Dr. J. H. Hartman, of Baltimore, exhibited a form of *écraseur* with extremities of different shapes, which could be used for various purposes in the nose, pharynx, or larynx.

Afternoon Session.—The first paper presented was by Dr. F. H. Hooper, of Boston, entitled

CONCERNING THE POSITION OF PARALYZED VOCAL BANDS.

The paper was in part based on experimental work done in the physiological laboratory of the Harvard Medical School, and in part theoretical. Specimens and drawings illustrating certain points were shown. The lecturer stated that it was his purpose to inquire into certain influences which might combine to determine the positions of paralyzed vocal bands, and to ask whether we are always justified in assuming that a given position of immobile vocal band was indicative of the arrested function of this or that muscle of the intrinsic laryngeal groups. The speaker thought that a vocal band might assume different positions in cases of complete paralysis of the recurrent nerve, and he passed in review certain anatomical factors and physical causes which he thought might contribute towards producing the position which might happen to be present when seen reflected in the laryngeal mirror.

Dr. Hooper concluded by saying that, in his judgment, the larynx is such a complicated organ anatomically, it is subject to such changes at different stages of life, its shape is so different in different individuals, its nerve-supply is so great, the arrangement of its muscles is so liable to anomalies, that as surely as one attempts to formulate theories on the positions alone of paralyzed vocal bands,—positions which may be controlled by intrinsic muscles of the larynx that are not paralyzed, as well as by those that are,—

just so surely will one be led unconsciously into erroneous mental inferences.

The next paper was by Dr. J. Solis Cohen, of Philadelphia, and related the further history of a case of "Paralysis of the Posterior Crico-Arytenoid Muscles," presented at the first meeting of the Association in 1879, with a report of the autopsy and the exhibition of a specimen.

Dr. Frank Donaldson, Jr., of Baltimore, read a paper on

THE FUNCTIONS OF THE RECURRENT LARYNGEAL NERVE, FROM AN EXPERIMENTAL STUDY IN JOHNS HOPKINS UNIVERSITY.

The speaker first referred to the fact that all the muscles, with the exception of the crico-thyroid, are supplied by the recurrent laryngeal nerve. The nerve therefore contains fibres controlling both phonation and respiration, acting both upon the abductor and upon the adductor muscles. He then referred to the experiments performed by Dr. Hooper, of Boston, the results of which had been presented at the last meeting of the Association. Dr. Hooper had found that the constrictors cease to act when consciousness is suspended by the action of ether, and that abduction with dilatation of glottis is obtained by stimulating the recurrent laryngeal nerve when consciousness is suspended. He therefore concluded that the constrictors do not cease to act during profound narcosis or in suspensions of consciousness from any cause, and that abduction is not always obtained when consciousness is suspended. It is with weak currents that abduction is produced, but as the stimulation is increased adduction takes place.

Dr. Hooper said that he regretted exceedingly that the lecturer had so evidently misunderstood and misinterpreted him, and could only attribute it to the circumstance that Dr. Donaldson had not read the paper he had quoted from. He offered to demonstrate to Dr. Donaldson the truth of his statements made two years ago, if he would come to Boston.

Drs. F. I. Knight and S. Solis Cohen also discussed the paper.

Dr. F. I. Knight, of Boston, read a paper on

LARYNGEAL VERTIGO.

A number of cases of what is called laryngeal vertigo have been reported by various authors. The distinctive feature of these cases is that attacks of coughing are followed by giddiness and momentary loss of consciousness: this latter symptom was present in all but two cases. While it is probable that attacks of dizziness after coughing are not rare, yet little attention has been paid to the subject. The writer had been able to find fourteen published cases; to these he added two coming under his own observation.

The following points were obtained from a

study of the reported cases. All the cases, with the exception of one, have been in males; the cough which induced the attack was slight in six cases, spasmodic in two, and severe in three; momentary loss of consciousness occurred in fourteen cases; one case fell, but declared that he had not lost consciousness; dizziness is mentioned in eleven cases; in four cases there seems to have been decided evidence of laryngeal spasm; in one this was doubtful; in four cases there was marked congestion of the head and face; in two the patients were pale; convulsive movements of the limbs occurred in three cases; in one the movements affected the face and head, and in another the face. In these cases there was no biting of the tongue, no frothing of the mouth, and no involuntary micturition. The speaker objected to the term laryngeal vertigo. There probably is no real vertigo in these cases in the sense of the vertigo seen in aural vertigo: there is simply giddiness or lightness of the head. These cases cannot be considered to be cases of petit mal.

The cause of the attacks is disturbance of the cerebral circulation, perhaps due to the compression of the large blood-vessels of the chest, and perhaps the heart. Even without this, the effect of rapid breathing is well known. This causes marked cerebral disturbance.

Dr. Frank Donaldson, of Baltimore, presented a paper on

A CASE OF CONGENITAL DEFECT OF THE EPIGLOTTIS, ILLUSTRATING A FUNCTION IN DIGESTION,

which was read by title.

D. Bryson Delavan, M.D., of New York, read a paper on

BUCCAL TUBERCULOSIS.

He had seen six cases of this affection. In the reports of twenty-four cases of tuberculosis of the tongue, in all but one the subjects were males. In twelve cases the lesion was anterior, in seven upon the side, and in one at the base of the tongue; in four the situation was not stated. The disease was primary in nine cases, secondary in seven cases; in the remaining cases it was not stated whether the disease was primary or secondary. The longest duration of a case of primary tuberculosis was two and one-half years, the shortest ten weeks. The age of the oldest person affected was seventy years, and of the youngest not under twelve.

The first case coming under the speaker's observation was H., aged 35, a laborer. His family history and previous history were good. The man was remarkably robust. Six weeks before coming under observation he experienced pain at the base of the tongue. This pain became excessive, and at the end of two weeks he was obliged to give up work. On examination, a fissured and ulcerated sur-

face was found at the base of the tongue on the right side. This lesion was indurated. In the centre was a large ulcer, with large flabby granulations. On the right side externally, under the angle of the jaw, was a hard tumor about the size of a chestnut. There was slight fetor of the breath. The diagnosis was uncertain. The pain was so severe as to prevent sleep. An application of a four-per-cent. solution of cocaine checked the pain for five hours. The patient's condition became so serious that he was removed to the New York Hospital, where, under the idea that the disease was epitheliomatous, the complete removal of the tongue was made. The patient recovered rapidly from the operation, and there was marked improvement in the general condition. It has been impossible to find any evidence of disease of the lungs or other internal organs. On microscopic examination, all the parts present abundant tuberculous material. A point of interest in this case is that this is the first case on record in which such an operation has been followed by an apparent cure. Of course, sufficient time has not elapsed to speak positively as to the ultimate result. The operation was done in the latter part of December, 1885.

Dr. Shurly, Dr. J. S. Cohen, and Dr. Roe took part in the discussion.

Adjourned.

Second Day, Morning Session.—The following officers were elected: *President*, Dr. E. Fletcher Ingals, of Chicago; *First Vice-President*, Dr. E. Carroll Morgan, of Washington; *Second Vice-President*, Dr. J. N. Mackenzie, of Baltimore; *Secretary and Treasurer*, Dr. D. Bryson Delavan, of New York; *Additional Member of the Council*, Dr. F. H. Hooper, of Boston.

The following active members were elected; Dr. Benjamin F. Westbrook, of Brooklyn; Dr. Frank Donaldson, Jr., of Baltimore; Dr. Alexander W. MacCoy, of Philadelphia; and Dr. J. C. Mulhall, of St. Louis.

Professor Ramon de la Sota y Lastra, of Seville, Spain, was elected a Corresponding Fellow.

A proposition in reference to the formation of a Congress of American Physicians and Surgeons was presented. The proposition was approved, and the following committee, taken from the ex-Presidents of the Society, was appointed to confer with committees from other Societies: Dr. J. Solis Cohen, of Philadelphia; Dr. G. M. Lefferts, of New York; Dr. F. I. Knight, of Boston; Dr. F. H. Bosworth, of New York; and Dr. E. L. Shurly, of Detroit.

It was decided to hold the next meeting in Chicago, the time, the first Thursday in June, 1887.

The first scientific paper was by Dr. E. L. Shurly, of Detroit, giving observations on the use of some of the newer remedies in diseases of the upper air-passages.

Dr. William H. Daly, of Pittsburg, read a paper on

THE SIMPLEST AND MOST EFFICIENT TREATMENT OF DIPHtheria.

The speaker stated that he did not intend to offer a new treatment, nor one which would cure ninety or one hundred per cent. of the cases. He would not discuss the point whether diphtheria and croup were identical. His object was to describe the calomel treatment. This is an old treatment. It is mentioned in the writings of Rev. Sydney Smith. About 1779, Sydney Smith's daughter, when six months old, was taken sick with a violent attack of croup. Dr. Hamilton, of Edinburgh, was sent for, but, not being able to come, sent directions to "give the child two grains of calomel every hour, and to persevere. He had never known this to fail." This was done, and the child recovered.

The credit of practising and recommending this treatment in modern times belongs to Dr. William C. Reiter, of Pittsburg. Of the different forms of mercury, calomel is the best. The drug is to be given in doses of from two to five grains every one, two, or three hours. It may be given dry and washed down with a little ice-water, or it may be given in water. This is to be continued until the stools become frequent and contain in them gelatinous masses of a bright-green color, resembling chopped spinach. Then the interval is to be lengthened, and the drug continued so as to keep up this condition of catharsis, the patient having two or three stools each day. It is better to lengthen the interval than to diminish the dose. In this way there is less liability to induce pyalism.

The speaker had found it the most efficient of any treatment that he had employed, and it was the simplest to use. The cardinal rule in the treatment is to give the calomel until the condition of catharsis described has been produced. Under this method a greater number of cases will be saved than under any other proposed method.

Discussed by Drs. Shurly, Donaldson, Robinson, Bosworth, and Mackenzie.

Dr. E. Carroll Morgan, of Washington, then read a paper on

THE QUESTION OF HEMORRHAGE AFTER UVULOTOMY, WITH THE DESCRIPTION OF AN INSTRUMENT FOR ITS ARREST.

He described the following case. A man, aged 28 years, whose uvula had been excised five days previously by another operator, came to him with the statement that the bleeding came on four hours after the operation, and had continued at intervals since then, a large quantity of blood having been lost. Various means had been tried to stop the bleeding, without success. The parts were covered with a coagulum of the persulphate of iron. This was removed, and the

parts cleansed. The bleeding points were then seen. The uvula evidently had been greatly hypertrophied. The scissors had been used in the operation. There was no evidence of the hemorrhagic diathesis in this patient or in any member of the family. The parts being cleansed, the stump was seized with dressing-forceps, and the hemorrhage was controlled. The galvano-cautery was applied, and the bleeding stopped. In nine hours it recurred. The cautery was again used, and the stump dusted with the persulphate of iron. The following morning a copious hemorrhage took place, not less than a drachm a minute, by actual measurement, being lost. A careful examination was then made to detect any other source of hemorrhage, but none could be found. Chromic acid was then used, and the hemorrhage stopped. At three o'clock the same day copious bleeding recommenced. Galvano-cautery was again employed. There was not room for the application of a ligature. Torsion was tried, without success. A small clamp (used in retaining shirt-sleeves in position, with the spring weakened, and the teeth filed down) was then applied. A string was attached to this and brought out of the mouth. This checked the bleeding, and was allowed to remain for several hours. It was then removed, and the bleeding did not recur. A search of the literature of the subject failed to show any instance in which such a procedure had been before adopted. In this case he thought that this device had saved the patient's life.

A careful study of the subject had enabled him to find seventeen other cases in which the hemorrhage after this operation had been profuse. Where the bleeding is persistent, it is always arterial in character.

The speaker, in conclusion, said that a fatal hemorrhage had never followed uvulotomy. A persistent, alarming hemorrhage is encountered only in the rarest instances. A moderate bleeding, stopping spontaneously or by the use of the mildest applications, occasionally happens. A loss of a few drops of blood at the time of operating, followed by a slight oozing, is a common occurrence.

The most reliable surgical measures for controlling uvular hemorrhage are ligature, compression by a clamp or forceps, and the use of the actual cautery. The most reliable styptics are, in the order named, solid nitrate of silver, persulphate of iron, gallic acid, tannic acid, alum, the local use of ice, and vinegar. The most reliable systemic remedies are opium, acetate of lead, sulphuric acid, and ergot.

To the paper was appended an exhaustive bibliography.

The speaker recommended that in operating the object should be to restore the uvula as nearly as possible to its normal size, and that the entire uvula should not be removed.

Discussion by Dr. Hooper, Dr. Donaldson, and Dr. Daly.

Afternoon Session.—Dr. Thomas R. French, of Brooklyn, presented a paper entitled

THE LARYNGEAL IMAGE AS SEEN IN PHOTOGRAPHS TAKEN DURING THE PRODUCTION OF TONES IN THE SINGING VOICE.

The speaker had made numerous investigations on this subject, and his observations failed to confirm the statements of most authorities in regard to the position of the vocal cords during the production of different notes. Different individuals evidently use different mechanisms in the production of different tones. The general result of his investigations seemed to indicate that in the production of low notes the vocal cords are separate to a greater extent posteriorly than anteriorly, in the production of the middle tones the vocal cords are parallel, and in the production of high notes the opening is widest in front.

The paper was illustrated by numerous photographs thrown upon a screen.

The following papers were then read by title:

"Clinical Notes on Prolapse of the Laryngeal Ventricles," by Dr. George W. Major, of Montreal.

"Three Cases of Thyrotomy; Recovery in Each Case with Good Voice," by Dr. Clinton Wagner, of New York.

"Alarming Hemorrhage after Tonsillar Excision arrested by Torsion of the Artery," by the same author.

Dr. William C. Jarvis, of New York, then read a paper on

A NOVEL PROCEDURE FOR THE REMOVAL OF SUBGLOTTIC LARYNGEAL GROWTHS.

J. C., aged 35 years, consulted me for the relief of a difficulty of speech and of breathing. The trouble with the voice was noticed two years before; the difficulty in speech appeared one year before coming under observation. The laryngoscope showed a mass of papillomatous tissue occupying the cavity of the larynx. The vocal cords and ventricular bands were not involved. The attempt was made to seize them during phonation, with the Mackenzie forceps. Only a few pieces were removed. The *écraseur* was then tried, but it was found impossible to use the instrument, on account of the wire being seized by the spasmodic contraction of the vocal bands and displaced. Chromic acid applications were then tried, but, although the growth was touched, it was found impossible to limit the application to the diseased structures. The patient then disappeared, and did not return for a year. His condition was then much worse, and the difficulty of breathing had greatly increased.

I then determined to try the following plan, and, if this failed, to remove the growth through

an opening in the windpipe. Forceps similar to the Mackenzie instrument, but heavier, were secured. Through the tips of the blades holes were drilled, and through these was passed a piece of No. 00 piano wire, which was conducted through a second opening at the angle of the blades and out to the handles, where it terminated in a loop into which the extremity of the index-finger could be placed. When the blades were separated, this wire formed a cross-bar uniting their extremities. When the blades were closed, the loop of wire could be drawn up by the finger. The operation was performed without an anæsthetic. The tongue was depressed, and with the aid of the mirror the forceps were introduced into the cavity of the larynx. The mirror was then removed and the forceps carried down to the glottis, through which the tip of the instrument was forced with considerable trouble, on account of the spasm. The instrument was carried into the trachea sufficiently far to be sure that it was below the attachment of the growth. The blades were then separated, and, pressing against the anterior wall of the larynx, the instrument was gradually raised until the wire was caught. The blades were then closed and clamped, the loop of wire drawn in, and the forceps removed, bringing with it a growth. The laryngoscope showed a second growth, which was removed in the same way. Breathing was at once rendered easy, and the speech became natural. The patient said that the presence of the forceps caused no pain, although uncomfortable. This is the only case on record of the removal of a subglottic tumor without anæsthetization and without an opening into the larynx.

T. Amory De Blois, M.D., of Boston, read a paper on

CASES OF LARYNGEAL OEDEMA.

The author gave brief details of fourteen cases of laryngeal œdema coming under his observation. All of these cases recovered, six under the use of astringents and eight after scarifications.

A paper by Dr. Charles H. Knight, of New York, describing

A CASE OF PERICHONDritis OF THE LARYNX, was read by title.

Dr. Edgar Holden, of Newark, New Jersey, described

A CASE OF GUMMATOUS DISEASE OF THE LARYNX, WITH SPONTANEOUS REOPENING OF THE LARYNX AFTER THYROID LARYNGOTOMY.

L. D., aged 35, presented himself, May 30, 1885, with dyspnoea and aphonia. Examination showed a cicatrix on the epiglottis, and the left side of the larynx presented a rounded mass of dull appearance. He denied syphilitic infection. After a careful consideration of the case, the probabilities were thought to

favor syphilis, and he was given iodide of potassium in large doses. There was improvement for a short time, but he soon became intolerant to the drug. Thyroid laryngotomy was considered necessary, and was performed. The tumor was removed with the écraseur. No ulceration was visible. Tracheotomy was then performed, and the upper incision closed with sutures. The patient did well, and the tube was removed on the tenth day. The external wound healed. He insisted on returning to his home, where the surroundings were very unfavorable, and his health deteriorated. On the fortieth day after the healing of the wound, the laryngeal incision was torn open by a severe cough. He refused to return to the hospital. Examination of the larynx showed no disease. Under the surroundings it was impossible to get the wound to heal. His health continued to run down, and six months and fourteen days after the operation the patient died of exhaustion. The patient had lived five months with an opening in the larynx.

Dr. U. S. Hitchcock, of New York, read a paper on

GUMMATOUS INFILTRATION OF THE BASE OF THE TONGUE,

giving the details of four cases coming under his observation.

Saturday, Third Day, Morning Session.—

A paper by Dr. S. Solis Cohen, of Philadelphia, on

A CASE OF HYSTERICAL SNEEZING APPARENTLY CURED BY APPLICATIONS TO THE NASAL PASSAGES OF THE CONTINUOUS BATTERY CURRENT,

was read by title.

Dr. John N. Mackenzie, of Baltimore, presented a paper entitled

A CONTRIBUTION TO THE PATHOLOGY AND TREATMENT OF THE RESPIRATORY VASOMOTOR NEUROSES.

The naso-bronchial tract is frequently the seat of periodical vascular disturbance, in which explosions of nerve-force play a conspicuous part. These probably depend upon some form of sympathetic or vaso-motor irritation. Into the production of such conditions two elements enter,—a depraved state of the nerve-centres and an abnormal excitability of certain portions of the naso-bronchial tract. In hay-fever we are dealing with a neurosis. In this connection he called attention to a neurosis of the aural cavity which was closely allied to vaso-motor coryza and also to a similar condition of the conjunctiva. These cases are a further evidence of the sympathetic nature of these affections. The older writers were evidently familiar with hay-fever, but they confounded it with the bronchial asthma of the present day. Asthma is

looked upon as a disease *per se*, but, like many other disturbances of respiration, it has no particular lesion, and is common to many pathological states. It, like cough, is most commonly symptomatic of some disorder of the respiratory tract. An interesting feature in a certain proportion of cases is the association of urticaria with coryza. This is a familiar observation. The speaker then considered the relations between the skin and the respiratory tract. He regarded the skin as having a function similar to that of the lungs. On the principles which he explained he based the treatment of hay-fever, or periodical vaso-motor neurosis of the respiratory tract. In the greater number of cases the nasal passages were the seat of the vascular disturbance. Next in frequency came the pharynx. Occasionally it was localized in the laryngeal cavity. In whatever portion the vaso-motor neurosis is situated, the general principles are the same. The treatment of one of these affections is essentially the treatment of the others. Hay-fever and asthma may be classed as symptoms owing their origin to a similar cause.

In the treatment of hay-fever the chief indications are to remove any existing local respiratory disease, to so alter the nutrition of the nerve-centres that they may not respond so easily to irritation, and to search carefully for pathological conditions and adopt appropriate treatment for their removal when found.

These chronic neuroses require chronic treatment. The peculiarity of the sympathetic is with the patient all the time, by night and by day, and at any moment may give evidence of its presence by a paroxysm. Any treatment which is practised simply during the attack, or immediately before, is simply palliative. In reference to the use of cocaine, he had found that it increased the irritability of these structures, and its application to the erectile tissue may ultimately weaken the cell-walls. He, however, did not question the excellent virtues of this remedy in certain acute affections. In hay-fever he had failed to find improvement after its use. For a short time amelioration was produced, but in the course of an hour the symptoms recurred. His custom is to treat hay-fever as any other chronic disease of the nervous system. He insisted upon a prolonged tonic course of treatment during the intervals. This may at first fail, but if persisted in the time will come when, if there is no incurable lesion, the paroxysms will diminish in severity and frequency. The great mistake is made in the suspension of the treatment upon the termination of the attack. Among the remedies for the constitutional management of this class of cases he recommended phosphide of zinc (gr. $\frac{1}{16}$), quinine (2 grs.), and ext. nux vomice (gr. $\frac{1}{4}$). This may be given in pill form before meals.

After meals he directs that from three to five drops of liquor arsenici et hydrargyri iodidi be taken in a wineglassful of water. A similar line of treatment had been employed for several years by the speaker in simple inflammatory conditions of the nose and throat with good results. He had also employed bromide of potassium with advantage. A constant current of from ten to fifteen cells, with one pole over the nape of the neck and the other over the region of the superior cervical ganglia, or in the nasal passage, had in a few cases been beneficial. In one case improvement followed the obliteration of vessels on the posterior wall of the pharynx.

In regard to topical applications to the existing nasal conditions, these accomplish one result only. They close one door to irritation of the nerve-centres. In many cases this is of itself sufficient. There are other cases in which such a course will fail. In these neuroses we cannot expect to eradicate the disease thoroughly until the sympathetic-nerve-irritation is overcome.

DISCUSSION.

Dr. William H. Daly, of Pittsburg, stated that the iodide of sodium in small doses had given him better results than any other single remedy. He insisted that all cases of this kind be subjected to a thorough inspection.

Dr. C. E. Sajous, of Philadelphia, in referring to the treatment by the galvano-cautery, stated that in the early part of his experience he had obtained excellent results. Last year he met with a number of unsatisfactory cases. Although all the cases were benefited, absolute relief was obtained in not more than forty-five per cent. Some of the cases treated two years ago, and which escaped the attack the following year, had a recurrence last year. Some of the cases, however, have entirely escaped. One case, treated in 1881 with glacial acetic acid, has had no recurrence.

Dr. Carl Seiler, of Philadelphia, thought that some failures in the treatment of hay-fever might be explained by the suggestion thrown out in the paper read. The Schneiderian membrane is not the only source of irritation of the vaso-motor nerves. The source of irritation may be situated in the pharynx or in the larynx.

Dr. Samuel Johnson, of Baltimore, read a paper entitled

A CASE OF NASO-PHARYNGEAL GROWTH,

describing a case in which, when the growth had been cut through about two-thirds, the shaft of the instrument broke, leaving the wire and about three-fourths of an inch of the instrument attached to the growth. An attempt was made to apply a second *écraseur*, but this failed. After trying to remove the portion of instrument broken off, it was decided to wait a short time and allow the growth to slough off. Four days later the at-

tempt to apply an *écraseur* was again made, and succeeded without difficulty. The tumor measured one and one-half inches in diameter, and was fibroid in character.

Dr. C. C. Rice, of New York, then presented a paper on

WHAT CASES OF NASAL CATARRH REQUIRE SURGICAL TREATMENT?

The speaker held the view that almost every nasal chamber will exhibit irregularities and abnormalities of some kind. The introduction of more improved methods of determining the locality of inflammation has led to a more frequent resort to surgical measures. Not every case of anterior hypertrophy should be operated upon. The erectile tissue in this situation serves a valuable physiological function in swelling up and excluding irritating particles from the lungs. In determining whether or not an operation is required, the sensations of the patient should be taken into consideration with the results of the examination. If, after the use of a four-per-cent. solution of cocaine, sufficient hypertrophy to interfere with breathing is still apparent, it should be removed.

DISCUSSION.

Dr. F. H. Bosworth, of New York, maintained that the erectile tissue of the nose does not exist. The membrane assumes the prominent position only as a morbid condition. There is no physiological function subserved by its swelling up. He considered it a mistake to suppose that we have morbid conditions in every nose. The healthy nasal cavities present a typical appearance.

The President, Dr. Harrison Allen, called attention to the fact that in man the nasal chambers are exceedingly degenerate. There is no animal in which the nose is so small in comparison with the rest of the face as in man. It is well known that structures which are passing through a process of degeneration are exceedingly variable. So it is with the human nasal chambers.

All animals with short faces, as the rabbit and cat, have these erectile bodies on the nasal chambers. He held that the object of these bodies was obstructive, and that by swelling up they protected the portions behind. If that be the case, he did not see why we cannot admit that this same erectile tissue exists in man. In his opinion the erectile tissue does exist, and is protective and obstructive in its functions.

The following papers were read by title: "Inflammation of the Antrum," by Dr. Beverley Robinson, of New York.

"Additional Notes on a Case of Erysipelas of the Larynx," by William Porter, M.D., of St. Louis.

After some discussion, the report of the Nominating Committee was amended, and it

was decided to hold the next meeting in New York City, the time to be fixed by the Council.

A vote of thanks was then tendered the Philadelphia College of Physicians, the Union League Club, the University Club, and the Managers of the Pennsylvania Hospital, for courtesies extended.

On motion of Dr. Daly, a vote of thanks was tendered to the Secretary, Dr. W. B. Delavan, for his valuable services.

The Association then adjourned.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

THE Thirty-Seventh Annual Session of the State Medical Society was held June 2, 3, and 4 at Williamsport, the Association being the guest of the Lycoming County Medical Society, which tendered the compliment of a reception and supper on the first evening to the visiting members and friends. The attendance of delegates and permanent members was over two hundred, and good order was preserved by the President, Dr. E. A. Wood, of Pittsburg, who is an excellent presiding officer. During the session a visit was paid to the Williamsport Hospital, an isolated, roomy cottage-hospital of about twenty beds, under the charge of a woman superintendent and resident physician, Dr. Church, where the Ladies' Aid Society held an impromptu reception, which was one of the most enjoyable events of the session. Reno Post, G. A. R., also tendered a reception to the members of the Society. The meetings were held in the Academy of Music, which was commodious and offered abundant accommodations. By what we must regard as an error of judgment, the last day's session was practically abolished in order to allow a comparatively small number of those in attendance to take an excursion to Watkins Glen, which was pleasant enough, but should have been put off until the regular business of the session had been accomplished. As a result of this encroachment, the affairs of the session were hurried, and there was very little time in which to consider important business or to devote to intelligent discussion of the papers.

The meeting was opened with prayer at each morning session. The President called the Society to order at 9 A.M., June 2. Dr. T. H. Helsby, of Williamsport, delivered the

ADDRESS OF WELCOME.

The Society last met here fifteen years ago, and the pleasant and profitable influences of that meeting are still felt. Many honored members who were a power in your councils and who took an active and prominent part in your deliberations are no longer with us; Worthington, of Chester, James S. Carpenter, of Schuylkill, John L. Atlee, of Lancaster, King, of Allegheny, Wallace and Bennett, of

Erie, Rutherford, of Dauphin, Priestly and Hall, of Northumberland, Crawford and McVicker, of Lycoming, W. A. Atlee, Bolles, Fish, Hodge, Mayberry, Nebinger, Albert H. Smith, and Townsend, of Philadelphia, are no longer with us; but we miss, more than all, "that distinguished member of the profession who presided over your deliberations on that occasion, and whose memory is dear to the entire medical profession of the great commonwealth, S. D. Gross, of Philadelphia. These have been called away from the field of their earthly labors,—some in the maturity of age, and others in the strength of manhood,—reminding us of our own mortality and that we in turn must become the victims of the limitations of our art, and enforcing the humiliating conclusion that medical science, notwithstanding its progress, is powerless in the presence of the grim destroyer, Death.

"It is a subject for cordial congratulation that since your last session in this city your Society has grown in numbers and usefulness. Of the sixty-seven counties of our State, fifty have regularly organized County Societies, with representation in your body. Your roll of permanent members has increased from four hundred to over one thousand. Surely there must be some intrinsic worth in an Association which can unite so many intelligent and reflecting minds, which can bring together at the annual meetings so many representatives from every section of the State, withdrawing them from the duties of an exacting profession, and, in a spirit of self-sacrifice and devotion to their art, to renew their co-operative efforts for the advancement of medical science, the elevation of professional character, the extension of the bounds of medical knowledge, and the promotion of all measures adapted to the relief of suffering, the improvement of the health and the protection of the lives of the community. No more important objects could possibly have engaged your attention, none which more deeply affect the vital interests of all classes of society."

Reviewing the scientific objects for which the Society was organized, he declared that the defective preliminary education of the physician is the great obstacle to the elevation of medical practice.

"One of the most serious obstacles to the efforts of your Society to elevate professional character and to place our profession in that position of honor and respectability which it should occupy in the estimation of the community, is to be found in the imperfect and defective education of those who enter upon the study of medicine. You have endeavored to remedy this evil by requiring each County Society to examine all students as to their preliminary education, but your efforts in this direction have been defeated by the facilities afforded to the ignorant and illit-

erate to crowd the ranks of the profession through the indefinite multiplication of medical schools throughout the country, bidding for and even entreating public patronage by offering a full course of instruction on easy terms, and presenting inducements to the half-educated and even wholly uneducated youth of the country to become physicians. It is this cheapening of medical education that tends more than all other causes combined to make the practice of medicine a trade, and it should receive the unqualified censure of the whole profession. The law of self-preservation bestows the right, and the disastrous consequences to the public impose the duty, of restraining within just bounds the power of these traders in medical education to disgrace the office of teacher and destroy the respectability of the medical profession in the eye of the world. We should exert every effort to establish a State board of examiners, who should have control of medical practice, and an examination by whom should be an indispensable condition for determining the qualifications of all who desire to enter upon the practice of medicine, 'without regard to when, where, or how they obtained medical education.' Let the colleges teach and examine and graduate as at present, but let no one practise in this State who has not passed an examination by those who have no interest in passing or rejecting him."

This interesting address concluded with advice to physicians to avoid professional jealousy and strive for the elevation of professional character, and ended with a greeting and welcome again to Williamsport.

Dr. Helsby presented the programme, which was adopted. He also announced the reference to the Judicial Council of a protest against the delegates from Philadelphia County, on account of the contested election.

The Secretary called the roll: one hundred and eleven names were reported on the register.

The following was offered by Dr. Parish, who asked that it be re-adopted, it having originally been approved by the Society in 1882:

"*Resolved*, That this Society reaffirms its adherence to the principles of the Code of Ethics of the American Medical Association, and declares that, in its opinion, for a physician to extend professional recognition to irregular practitioners is to patronize and encourage irregular practice and is alike inconsistent with honesty of purpose and the pursuit of medicine as a science."

The resolution was unanimously adopted.

The report of the Committee on Programme was criticised, as a gentleman appointed to read an address was not a member of the Society, having been prevented from registering until the protest against the Philadelphia County Society could be decided.

On motion, an invitation was extended to Dr. Sajous to deliver his address on "Laryngology" in accordance with the programme.

Dr. H. H. Smith made the report from the American Medical Association at St. Louis, signed by all the delegates save one. A minority report was made by Dr. Charles K. Mills. Both were referred to the Committee on Publication.

Dr. Dulles proposed to appeal from the decision of the chair, and moved that when protests are entered against delegates, they shall not be deprived of the rights of delegates until the protests are disposed of. The resolution was laid on the table.

Reports from the various County Societies were called for, with but few responses.

Dr. T. Parvin, of Philadelphia, an ex-President of the American Medical Association, was invited to a seat upon the platform.

Dr. E. Jackson, of Philadelphia, Chairman of a committee appointed at the last meeting, reported the draught of an act to establish a State Board of Examiners and Licensers, composed of members of the profession to be nominated by State Medical Societies and appointed by the Governor,—no physician connected with a medical college as a teacher to be eligible. After some discussion, a motion to postpone indefinitely was lost, and it was made the special order for the next day.

(To be continued.)

PHILADELPHIA ACADEMY OF SURGERY.

A STATED meeting of the Philadelphia Academy of Surgery was held May 3, 1886, the President, Dr. D. Hayes Agnew, in the chair.

Dr. J. H. Packard reported a case of

RUPTURED URETHRA AND ENORMOUS DISTENTION OF THE BLADDER.

I wish to mention a case of stricture of the urethra with rupture and enormous infiltration of urine. The man was brought into the hospital last Wednesday with an immensely-distended bladder and the condition which I have mentioned. The root of the penis was beginning to slough. The man was in an extremely prostrated condition, having passed urine only drop by drop for four days. There was enormous swelling of the scrotum and perineum, all the landmarks having disappeared. There seemed to be nothing to be done except to open the bladder above the pubes. Cutting through greatly-thickened skin, I opened an abscess before reaching the bladder, and then passed in a curved trocar, evacuating a large quantity of urine. I then incised the skin of the scrotum and perineum freely. One incision was made in the median line, but no urine escaped through it, nor has any escaped up to the present time. I then applied a charcoal poultice. The dusky discoloration of the skin rapidly disappeared as

soon as the tension was removed. There was an enormous flow of serum, smelling strongly of urine, from all the incisions. The man has since done well, although a large amount of slough has been removed from the wound in the hypogastrium, and also from the root of the penis. The swelling has now all gone down, and the man thinks that he passes considerable urine by the urethra, but the greater portion probably comes from the wound in the hypogastrium. I kept a drainage-tube in for several days, but, as it passed through a mass of slough, it seemed as though little additional damage would be done by the contact of urine, and I therefore removed it. This is the fifth day, and, as I have said, the patient is doing well. This seems to be one of those cases in which the most unfavorable condition may promise success where apparently simpler cases will die. The method of operating also makes it interesting. I know that some of my friends differ very radically from me, yet I cannot help thinking that a very excellent method of treating retention of urine with stricture is not to carry out the principle, which I know is perfectly tenable, that by trying the patient you can get through every stricture with an instrument. I think that in many cases where there is great difficulty in instrumentation it is really better to aspirate and draw off the urine, and if necessary repeat this in twelve or twenty-four hours. In the course of twenty-four or forty-eight hours an instrument can be passed with greater ease than if the attempt to pass a sound had been persisted in.

In regard to fixing tubes in the bladder, there is a simple plan which I adopted in an cesophagotomy which I performed five or six years ago. This consists in taking a large drainage-tube and inserting within it a metal ring grooved on the circumference. This ring fills the tube. About it is twisted a silver wire formed into a loop on each side. To these loops tapes may be attached. If it is desired to close the tube, the portion beyond the ring is two or three inches long, and if it is doubled on itself and a ring slipped over it all fluid is prevented from escaping.

At a recent meeting of the Academy, Dr. Morton related a case where he performed the supra-pubic operation in a case of enlarged prostate. I have reported a case of the same kind, done in the country. The relief was very great. It seems to me that this operation has been undeservedly neglected by surgeons.

Dr. Thomas G. Morton: The case to which Dr. Packard has referred is that of a man aged 76 years, on whom I operated three months ago. He still wears a tube with a stopper in the end of it. He is absolutely comfortable, and evacuates his bladder every five hours. He sleeps all night, opening the tube but once. His family states that he has gained seventeen pounds in weight. The

urine, which before was extremely ammoniacal and incrustated the glass tube within forty-eight hours, has become entirely clear and is without odor. No urine escapes along the tube. The operation has probably saved his life, and has made him more comfortable than an external urethrotomy would have done. The tube consists of an œsophageal tube cut into pieces. The internal extremity has a number of openings cut into it, while the external end is fitted with a glass tube in which a stopper is placed. When he desires to urinate, he simply removes the stopper. Only once has urine escaped through the urethra, and that was during violent straining with a passage, when about a teaspoonful escaped.

ORTHOPÆDIC APPARATUS.

Dr. Thomas G. Morton: I have here some photographs which I should like to exhibit. Some years ago I reported a case of total paralysis of the legs with partial paralysis of the thighs. There I turned up the legs upon the thighs and put artificial legs upon the boy. He was then able to walk with readiness, and on one occasion walked five miles. He got uneasy in regard to having his legs turned up every day, and thought that it would be better to have the legs amputated. They were amputated, and the result was fatal. Since then a case has come under my care in which the right leg is totally paralyzed from the middle of the thigh downward, the limb being excessively atrophied and eight inches shorter than the other. In that case I have done the same thing, and these photographs give the result. In many cases the moral effect of treating a case by apparatus in this way is good. I should hesitate very much before adopting any more serious treatment in the way of amputation, especially with the results which I have had by this method in the two cases mentioned. This boy walks well, without any limp, and you would not know that there was anything wrong.

OPERATION FOR TRACHEOTOMY.

Dr. Charles B. Nancrede: I had occasion a short time ago to call the attention of the Academy to the operation for opening the trachea proposed by the German surgeon Boas. My principal reason for referring to this now is to call attention to the mistake which Morell Mackenzie makes in describing this operation. He says that if, after making the incision down to the cartilage, you make an incision at the lower margin of the thyroid cartilage, you will divide the superficial and deep layer of the cervical fascia and be able to push everything downward. You can do nothing of the sort. If you make the incision at this point [indicating], you will be able to push everything out of the way. For the purpose of removing growths from the larynx this is better than any other method of operation.

The other day I opened the trachea of an adult aged 50, for the purpose of removing an intra-laryngeal growth which the laryngologists said could not be removed *per vias naturales*. I cut through the thyroid cartilage and removed the growth without difficulty. The case has since done well. I was anxious to call attention to this operation. I had done the operation before inadvertently. Dr. Lenox Hodge called my attention to it as a recognized operation. This is the first time that I have purposely carried it out. I got as low as the fourth tracheal ring, and I think that I could have gone still lower if it had been necessary.

Dr. Thomas G. Morton: I have done the operation of tracheotomy many times, but I have never had any hemorrhage that amounted to anything. I do not know that I have ever tied a vessel in any of the operations. As soon as I have got through the skin, I take my nail and the handle of a scalpel and scrape my way down until I reach the highest ring of the trachea. I then put in a tenaculum to hold it, and cut out a piece. I have not had the slightest difficulty.

Dr. Charles B. Nancrede: I have been less fortunate than Dr. Morton. In the last tracheotomy that I did at the Episcopal Hospital there was great hemorrhage. It was in a man 30 years of age. There had evidently been a subcutaneous gumma with a large cicatrix, causing great sinking in over the sternum. I incised the skin and divided the superficial fascia. I found the division between the muscles, and commenced to separate them with the director, and then the hemorrhage began. There was complete spasm of the larynx, and the man sprang up in bed. I secured a tenaculum and caught the trachea, plunged in a knife, and, fortunately, hit the trachea, and then inserted a tube. Some of these operations are very easy, but others are accompanied by severe bleeding.

LIGATION OF BRACHIAL ARTERY.

Dr. F. H. Gross: I desire to refer to a case in which I tied the brachial artery three weeks ago. The man was brought into the German Hospital without any very definite history. He had been injured in the finger, and this was followed by cellulitis of the forearm, extending beyond the elbow. The palm of the hand was immensely swollen. There were numerous gashes in the arm, as though incisions had been made. There were incisions over the radial and ulnar arteries at the wrist. There was a long cut on the inner side of the supinator longus, from which a ligature hung, the radial artery having been ligated below the supinator longus. There was a rubber band around the arm above the seat of hemorrhage. On removing the band there was a free flow of blood from the vessels. The arm was in a high degree of cellulitis, and presented some black spots, es-

pecially at the upper wound, where the radial artery had been tied. In order to check the bleeding, I tied the brachial artery just below the anterior profunda. One reason for mentioning the case is the marvellously favorable effect which this had upon the phlegmonous condition. The following day the skin was already somewhat wrinkled, and the cellulitis continued to subside below the seat of ligation; but such was not the case above the seat of ligature. There an abscess formed, and I feared that I should be obliged to ligate the subclavian. The abscess, however, found its way into the upper incision, and the patient is now doing well.

I believe that it has been proposed to tie the main artery in the treatment of cellulitis; but who proposed this I do not know.

MYXOMA REMOVED FROM AXILLARY REGION.

Dr. Charles B. Nancrede: I have here what Dr. Simes says is a genuine myxoma. It was removed from the axilla of a child 11 months old. The tumor was detected when the child was three months old. It was thought to be various things by the physician, but an exact diagnosis was not made. The case was sent to me for an opinion. It felt very much like a cyst, and there was evidence of irritation of the glands from bad vaccination. I considered it a cyst or a chronic abscess. Six weeks later it had increased three or four times in size, and it was determined to remove it. Two weeks ago, with the assistance of Drs. Simes and Rex, we partially etherized the child and removed the growth, which filled the axilla completely. It went under the clavicle and well up to the cricoid cartilage. It was with the utmost difficulty that the growth could be enucleated. The child is now well. I show the specimen chiefly because myxoma beneath the deep fascia is rare. I have not been able to find an account of a case of myxoma in the axilla of a child under a year of age, or, in fact, of the axilla at any age.

Adjourned.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting was held May 20, 1886, the President, A. JACOBI, M.D., in the chair.

It was announced that the Academy would shortly come in possession of five thousand dollars left it by the provisions of the will of the late Dr. E. L. Beadle, one of the founders.

Memorial remarks on the late Dr. Caspar Griswold were read by Dr. E. G. Janeway; after which the same author read a paper on

THE DIAGNOSIS OF HEART-DISEASES,

in which he gave his experience with exceptional cases observed clinically and post mortem. First, there were different causes for altered position of the heart which might give rise to difficulty in diagnosis. He would

speak of one,—namely, elongation of the first part of the arch of the aorta. This was the only explanation which he could find for altered position of the heart as verified by clinical and cadaveric examination in several cases. Pushing forward and upward of the heart in spinal disease he had known to lead to an erroneous diagnosis of aneurism. The nipple was not infrequently taken as a guide to the position of the heart in man; but Dr. Janeway thought this an unreliable landmark, more so than the intercostal spaces and the centre of the sternum. Inspection and palpation were relied upon to a considerable extent as affording points in diagnosis; but the writer had often been struck with the absence of perceptible cardiac impulse in hospital inmates and also in persons in presumably good health. Sometimes, also, the cardiac impulse was not evident on palpation. This could not be taken as indicating more than a slight lack of force in action.

Some physicians were inclined to attribute the cardiac thrill to a single condition; but Dr. Janeway thought the conditions under which it was present were variable. It was generally true that the thrill accompanying aortic and pulmonary obstruction was perceptible at the base of the heart over the respective arteries, that of the pulmonary on the left, that of the aorta on the right of the sternum; but by this sign alone one would not be justified in making a diagnosis. The time of the thrill would help somewhat; but to exclude an aneurism would at times require a very careful examination. Although opposed in principle to snap diagnosis, he had not infrequently been able to predict mitral stenosis simply by palpation over the heart, and had found his prediction confirmed not only by further physical examination, but by autopsy.

Mapping out the area of the heart was, as a rule, not difficult; but Dr. Janeway had been much impressed by the devices which some physicians had thought it necessary to resort to in this procedure. A simple means would enable one to use the ordinary Camman stethoscope: namely, let the patient hold the stethoscope to his chest-wall, leaving the examiner's hands free.

Students were apt to condemn a heart over which a murmur existed, and to consider it normal when no murmur was audible, and he had known of some expert examiners being misled in the same direction. They were most likely to pronounce the heart normal when no murmur was present. Before pronouncing a heart normal, it was important to consider not only the nature of the heart-sounds, but also what effect the cause producing the murmur was having upon the heart. A difference of opinion was likely to arise when a murmur existed over the cardiac area as to its exact significance. There were other sources for murmurs heard over or near the heart which were of decided importance

to the patient so far as diagnosis was concerned, such as respiratory murmurs.

To distinguish between the murmurs produced in the aorta and at the aortic valves was not always a matter of ease. Sometimes an aneurism, a projecting thrombus on the aortic valves, or a chronic endarteritis would be found to produce either a systolic, a diastolic, or a presystolic murmur; or there might be a conjoint cause in the aorta and the valves for the murmur. The murmur of aortic regurgitation might be propagated to the apex, and if the leakage were free it might be mistaken for a mitral regurgitation or a presystolic murmur. With reference to mitral stenosis, in the majority of cases, when the valves were capable of vibrating, there existed a characteristic presystolic murmur; but at times there was no characteristic murmur of this lesion. A stenosis might exist without any distinct murmur, or with a murmur intermittently present. In a number of the cases there was a certain character of the first sound of the heart which, when taken in connection with the condition of the organ, settled the diagnosis in favor of mitral stenosis. Heart-murmurs as evidence of disease of the valves when they existed singly were at times a source of considerable trouble to the searcher for a true diagnosis; and when they increased to three, four, or perhaps five in number, there was great difficulty in diagnosis. The author pointed out the difficulty of distinguishing at times between a mitral regurgitant and a mitral presystolic murmur, of diagnosing tricuspid regurgitation when there was mitral stenosis; whether a loud systolic murmur heard over the base of the right ventricle were due to a tricuspid regurgitation or to an aneurism of the aorta. A thrombus at the apex of the left ventricle or in the left auricle, sometimes of considerable size, was present without giving rise to a murmur. Or a bead-like vegetation might exist on the auricular aspect of the mitral valve without a murmur. The author also took up other points in diagnosis.

Dr. E. DARWIN HUDSON, JR., opened the discussion, and said he would take up only a few points. The location of the apex of the heart was usually under the fifth or sixth interspace or the intervening rib. When not here, it was evidence at once in favor of cardiac dilatation or hypertrophy. But there might be a change in the position of the heart resulting in a variation from the usual position of a cardiac murmur. For instance, he had known physicians to mistake an aortic regurgitant murmur for a pulmonary regurgitant, when a search for the apex would have prevented the error. The importance of mitral murmurs, whether systolic or presystolic, could be properly appreciated only by studying the composite nature of the first sound of the heart. In many cases we could make an immediate and final diagnosis between a mi-

tral regurgitant and a mitral obstructive murmur; but he had so often found murmurs which possessed all the characteristics of an organic murmur at his first examination, and at a subsequent examination found that they had disappeared, that he would advise postponement of a final diagnosis until a second or some future examination. At one time he doubted the existence of the presystolic murmur, but he had long since changed his opinion on this point. He was sceptical, however, as to the frequency of the occurrence of the mitral presystolic.

Rest and sedatives would often cause the disappearance of an apparently mitral systolic murmur. He did not believe the mitral systolic murmur was transmitted by the solid structures around to the back, but rather by way of the auriculo-ventricular opening, posterior auricular wall, and thence to the back.

Dr. H. N. HEINEMAN dwelt upon the necessity for taking into consideration all the points in a given case, together with the clinical history, before arriving at a final diagnosis. Three years of observation of cases at Professor Clark's clinic led him to believe that thrill bore no relation to the intensity of a murmur, and that in itself it was of little significance. It could not be relied upon as a diagnostic sign, although it might be of aid in connection with other symptoms. He had known it to occur in aortic stenosis and be conducted to the apex, causing difficulty in diagnosis between aortic stenosis and mitral insufficiency.

Dr. A. L. LOOMIS had been greatly interested in the clinical and pathological experience which Dr. Janeway had related. He had given his experience upon certain points which one who studied cardiac diseases carefully would often find it difficult to decide upon. The author had first drawn our attention to cardiac displacement, and spoken of a displacement due to elongation of the aorta. Dr. Loomis once had occasion to examine a large number of healthy persons, and he came to the conclusion then that the region of the apex-beat varied in different persons more than was generally supposed. Displacement below the so-called normal point of apex-beat was most common. If now he should find the apex below its normal limit, there being the normal area of diffusion and intensity, etc., he would not for a moment suppose that it indicated cardiac disease.

The author had also called our attention to cases of feeble apex-beat in persons who had occupied the recumbent position for considerable time. When Dr. Loomis had found this condition he had questioned in his own mind whether there had not been some interference with cardiac nutrition. One who studied cardiac diseases soon came to the conclusion that it was not the murmurs nor the changes in position of the heart which were of so

much importance, but rather the integrity of the cardiac walls and of the cardiac rhythm. A mitral regurgitant murmur, for instance, might exist for years and be a matter of little importance; but when in connection with this murmur, or any other cardiac murmur, there came a change in the walls of the heart, permitting under high blood-pressure of a change in its cardiac rhythm, it was a matter of much significance.

Dr. Loomis believed that the thrill heard over the base of the heart or over the apex, as the case might be, was dependent as much upon dilatation of the cardiac cavities, combined with a general condition of anæmia, as upon valvular changes. If no cardiac murmurs were present, it was important to notice whether in connection with a thrill there was also a trembling impulse.

The diagnosis between a presystolic murmur and an aortic regurgitant was an old question. He had been taught by Dr. Camman that the murmur heard at the apex of the heart, preceding the first sound, was due to regurgitation at the aortic valves, the blood running down on the posterior wall of the heart. Soon, however, he had opportunity to make an autopsy on a patient whom he had repeatedly examined, and he found that the presystolic murmur had been caused by mitral stenosis. Since then he had not questioned the existence of the presystolic mitral murmur, the anatomical conditions which produced it, nor did he regard it as of especially serious import unless it was developed from an endocarditis. A large number of these murmurs were unquestionably congenital, and the patients got along without any apparent difficulty unless it were after over-exertion or pulmonary congestion. He thought one could distinguish these murmurs by analyzing the character of the sound.

Dr. Janeway had spoken of pulsation in the liver. Dr. Loomis had never seen expansive pulsation in the liver without pulsation in the jugular vein in the neck arising from tricuspid regurgitation.

If he would lay more importance upon one point than upon another, it was that the diagnostician should study carefully the condition of the cardiac walls and lay less stress upon cardiac murmurs. The latter might be absent or not recognized in a person who, after some sudden excitement or exertion, developed cardiac dilatation. A subsequent examination might then reveal a murmur.

Dr. Loomis asked Dr. Janeway whether he regarded ulcerative endocarditis as a primary or a secondary affection.

Dr. JANEWAY replied that there were some cases of undoubted secondary ulcerative endocarditis. Others, so far as could be determined, were primary, there being no other lesion to which it could be traced. There were other cases in which we might be left in doubt as to whether the other lesions coexist-

ent with the ulcerative endocarditis preceded it or were secondary to it.

The PRESIDENT asked whether a murmur was to be considered as always present in ulcerative endocarditis.

Dr. JANEWAY replied that it might not be present.

The PRESIDENT said he anticipated such would be the reply, for he was quite sure he had seen a case of ulcerative endocarditis in which there was no murmur. Perhaps it was because the vegetations were so near the base of the valve that they produced no vibration.

Dr. JANEWAY remarked that he had seen many vegetations in cases in which there was no murmur, and the absence of murmur was due to cardiac weakness. As to the diagnosis of mitral stenosis, it was sometimes difficult to distinguish between this condition and simply a prolonged first sound of the heart.

NEW YORK PATHOLOGICAL SOCIETY.

ASTATED meeting was held May 12, 1886, the President, JOHN A. WYETH, M.D., in the chair.

RETROPERITONEAL SARCOMA.

Dr. WALTER MENDELSON presented a retroperitoneal sarcoma, involving the kidneys and other tissues, removed from a German, aged 58 years. He had always enjoyed good health until his present illness. A sister had died of cancer. Dr. Mendelson first saw him on the 15th of February last, when he was complaining of constipation, anorexia, and general lassitude. His friends had noticed that he had been running down for three months. The urine contained a few hyaline and waxy casts. On the 15th of March the urine contained blood and blood-casts, hyaline casts, a few waxy casts, and a number of large, nucleated, highly granular cells, stained deeply with blood-coloring-matter. In the right loin was an ill-defined area of dulness, and a sense of hardness on deep palpation. The next day the patient was seen by Dr. W. H. Draper, who found the same condition of things, and also on the left side a nodular mass in about the region of the kidney. It was shaped very much like the kidney, was hard and slightly movable. The diagnosis of cancer of the kidney was made. Dr. Sands saw the patient on the 19th of March and agreed in the diagnosis. March 24 the patient passed red urine and blood-clots of great length, which Dr. Mendelson at first thought came from the ureters, but he concluded afterwards that they were formed while passing through the urethra from a mass within the bladder. At this time there was no tenesmus; but later the clots became harder and were passed with difficulty. On the 4th of April there was suppression of urine, and the patient died on the

15th, there having been passed during these five days only four ounces of urine.

The autopsy showed a large retroperitoneal sarcoma, involving both kidneys and the abdominal aorta; the intima escaped. The liver contained several small nodules. When the right kidney was cut into, a quantity of bloody urine gushed out. The ureter and pelvis of the kidney were distended with a bloody, grumous mass. The microscopical examination showed that the growth was a spindle- and round-celled sarcoma.

Dr. PRUDDEN remarked that it was often difficult to classify these retroperitoneal tumors. The arrangement of cells was often like that of carcinoma, and perhaps it would be better to classify these cases by themselves. The specimen presented by Dr. Mendelson seemed to be clearly one of sarcoma.

Dr. MENDELSON remarked that in a former specimen which he had seen the growth involved all the coats of the aorta and projected within, causing a thrombus.

PROFUSE EPISTAXIS—ACUTE DILATATION OF THE HEART.

Dr. PUTNAM JACOBI presented the heart of a child which died aged 5 years. The child's parents were very poor, and it had received but little to eat during the winter. Recently it had a very severe hemorrhage from the nose, which lasted several hours. When Dr. Jacobi saw the child, it was nearly exsanguinated; its color was that of wax. It had previously had three attacks of epistaxis; but only the first approached in severity the last. The only previous disease which might have had a causative relation to the hemorrhage, it seemed, was scarlet fever; but the heart was examined subsequently to that disease and found to be normal. When Dr. Jacobi examined the patient, the pulse was 150, the temperature 101° F. There was dilatation of the heart, and rather a loud systolic murmur, with its maximum intensity at the apex. The child did not respond to food and stimulants, but died at Dr. Jacobi's third visit. It was her intention at this visit to obtain some of the blood for examination, but the patient's condition was so low that it seemed cruel even to prick the finger.

The autopsy showed the left ventricle of the heart moderately dilated, the right somewhat dilated. The heart was extremely pale, especially over the right ventricle. The walls of the heart were streaked with yellowish-white lines. There was fatty degeneration, the degenerated fibres being intermingled with others which remained healthy. A similar change was manifest in the kidneys. There was a spot of presumable hypostatic pneumonia in one lung.

Dr. Jacobi thought it possible that the case was like those of profound malarial poisoning with progressive breaking down of the blood-

protoplasm in fine granulations reported by Italian writers. The voluntary muscular fibres had not yet been examined.

Dr. MENDELSON inquired whether the arteries were abnormally small.

Dr. JACOBI said they were examined, but not with regard to size. It was probable, had they been abnormal in size, that it would have been noticed.

Dr. MENDELSON said cases had been reported in which the arteries were congenitally too small for the needs of the body, and in these cases hemorrhages were very common. This might occur even without there being anæmia, as in the case of a young man from college who died suddenly, and at the autopsy they found a hemorrhage into the cerebral ventricles. The aorta was not larger than his ring-finger, the walls of the vessels were proportionally thin, and evidently during an unusual strain had ruptured.

Dr. JACOBI thought that cases of congenitally small arteries would not be likely to manifest symptoms due to such inadequate development until towards adolescence, when the demands of the body were greatest.

ALTERATION IN BLOOD.

Dr. T. M. PRUDDEN exhibited a section of brain-tissue, for which he was indebted to Dr. Councilman, in which were seen the indeterminate bodies said to have some relation to changes taking place affecting the blood. The bodies could be distinctly seen within the blood-vessels, in the perivascular spaces, and also in the blood-corpuscles.

BRONCHIAL PHTHISIS.

Dr. J. LEWIS SMITH presented the lungs of a child which died aged 8 months, illustrating bronchial phthisis. The bronchial glands were considerably enlarged, and some were undergoing cheesy degeneration. Dr. Smith thought that, had the child lived so long, there would have been signs of miliary tuberculosis within a month or six weeks. He wished to have the specimen referred to the Committee on Microscopy, to determine the presence or absence of the bacillus tuberculosis. Dr. Smith thought bronchial phthisis was not generally as well appreciated as it should be. Some cases he believed were mistaken for tubercular meningitis: the enlarged bronchial glands, interfering by pressure with the return-circulation from the brain, gave rise to the cerebral symptoms. In a case which he saw recently there was gradually increasing drowsiness, but the temperature did not rise above 100° F., and there was not the vomiting and sighing respiration of meningitis. The autopsy revealed bronchial phthisis, the enlarged bronchial glands having caused, by pressure on the blood-vessels, cerebral oedema.

REVIEWS AND BOOK NOTICES.

A REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES. Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By various Writers. Illustrated by Chromo-Lithographs and Wood-Engravings. Edited by ALBERT H. BUCK, M.D. Vol. II. William Wood & Co., New York, 1886. 4to, half morocco, pp. 814.

The volume before us begins with "Catarrh, Nasal," and ends with "Eye." Many of the subjects are treated by writers who are familiarly known as acknowledged authorities in special departments of medicine. Among the contributions attracting special attention are the illustrated articles on "Cerebral Cortex, Functions of," by W. B. Scott; "Cephalometry, Craniometry," by Irving C. Rosse; "Cestodes," by Charles G. Hackley; "Chest, Physical Examination of," by Lester G. Curtis; "Chorion" and "Decidua," by Charles S. Minot; "Cleft Palate," by Huntingdon Richards; "Club-Foot," by A. Sidney Roberts and Samuel Ketch; "Color-Blindness" (with colored plate), by B. Joy Jeffries; "Cornea" (colored plate), by Frank Buller; "Cranial Nerves," by Frank Baker; "Cremation," by Felix Formento; "Dactylitis Syphilitica" (colored plate), by Edward Wigglesworth; "Digestion," by Charles F. Withington; "Dislocations," by E. M. Moore; "Ear and its Disorders," by several contributors; and the "Eye and its Disorders" likewise is fully treated by different writers. We also would invite special attention to the article on "Electricity in Medicine," by Roswell Park, and the many illustrated contributions upon *Materia Medica* by W. P. Bolles. We would like also to mention some of the unillustrated articles, such as that on Cerebro-Spinal Meningitis, by James F. Whittaker, and those on Cholera and Diphtheria, both contributed by Harold C. Ernst, but we can do no more at present than simply to invite our readers to examine for themselves this valuable work, which is highly creditable to American medicine.

VON ZIEMSEN'S HAND-BOOK OF GENERAL THERAPEUTICS. In Seven Volumes. Vol. IV. THE TREATMENT OF DISEASE BY CLIMATE. By Dr. HERMANN WEBER. GENERAL BALNEOTHERAPEUTICS. By Professor OTTO LEICHTENSTERN. New York, William Wood & Co., 1885.

Change of climate is one of the oldest therapeutic expedients. Hippocrates, in his treatise "De Morbis Vulgaribus," declares, "In morbis longis solum vertere conducit," and in his other works, notably in his treatise "De Aëre, Locis et Aquis," and in his "Aphorisms," he reveals the high estimation in which climatic conditions were held in his day for the relief of diseased conditions. Aretæus recommended sea-voyages and a residence

at the sea-side for phthisical patients, Galen treated the same condition by mountain climate combined with a milk diet, while the elder Pliny was of the opinion (which many share at the present day) that patients would be more benefited by residing in the pine woods. Although later Roman and Arabian physicians referred occasionally to climate as an important factor in the etiology and treatment of disease, it cannot be said that scientific climatology and climato-therapeutics existed before the present century, and, according to Dr. Weber, Alexander von Humboldt was the founder of recent climatology, upon which the scientific treatment by climate is based.

This volume is one of the best of the series, and gives in moderate compass well-digested information upon two topics in which physicians possess less information than they should, and often less than they desire.

After a brief introductory chapter, chiefly historical, comes a Section upon Elements or Factors of Climate, taking up the atmosphere or air, temperature, moisture, light, and weight or pressure of the atmosphere, and influence of electrical conditions. Section II. contains a Classification of Climates into (A) Marine Climates, with (1) high, (2) medium, or (3) low degrees of humidity, and (B) Inland Climates, of (1) high altitudes and of (2) low levels. Section III. gives the directions for the Choice of a Climate for the Treatment or Prevention of Disease, concluding with Section IV. on Home Climatic Treatment.

General Balneotherapeutics is divided into three parts: (1) The Physiological and Therapeutic Action of Simple or Medicated Baths; (2) The Physiologico-Therapeutic Action of Water in its Internal Application; (3) The Pharmacodynamic and Therapeutic Actions of the Most Important Groups of Mineral Wells. An appendix is added, giving directions for various medicated baths and artificial mineral-waters and baths, and it is followed by a Synopsis of the Empirical Indications of Different Drinking and Bathing Cures in Individual Diseases.

Although references are given to some of the prominent health-resorts and mineral springs in this country, it is natural that European baths and cures should be most frequently referred to. This work we hope will stimulate to increased exertions those who are engaged in the investigation of the resources in mineral springs and health-resorts in the United States.

THE *Archives of Gynecology, Obstetrics, and Pediatrics* is published by Leonard & Co., New York. It is a bi-monthly journal, edited by the members of a Gynecological Club: it aims to contain a complete résumé of current literature on gynecology, obstetrics, and diseases of childhood, and is valuable to the general practitioner as well as to the specialist.

MISCELLANY.

PROFESSOR WILLIAM H. PANCOAST has accepted the honor of a reception and dinner which has been tendered him by a number of his friends prior to his departure for Europe on the 19th instant. The dinner will take place at 8 o'clock P.M. on July 17, at the Hotel Bellevue, Philadelphia. About one hundred covers will be laid. A number of distinguished physicians from different parts of the country are expected to be present.

AT JEFFERSON MEDICAL COLLEGE, Drs. A. C. W. Beecher, Orville Horwitz, and Thomas Bell have been appointed to take charge of the anatomical department, and will divide between them the duties of the position of the Demonstrator of Anatomy, which was rendered vacant by the election of Dr. Forbes to the Chair of Anatomy in the Faculty.

THE NEW ORLEANS AUXILIARY SANITARY ASSOCIATION is doing good work in flushing the streets and gutters with river-water, which, besides carrying away filth, reduces temperature. In consequence of the sanitary precautions of this Association, the health of the city is steadily rising in the scale, and the death-rate has been correspondingly reduced.

THE "Ideal" electric lamp, as manufactured by Daniel & Stewart, Philadelphia, furnishes a light which is sufficiently brilliant and steady to adapt it to microscopic or other work where a superior illumination is required.

NOTES AND QUERIES.

OBITUARY.

HENRY G. LANDIS, M.D., late Professor of Obstetrics and Diseases of Women and Children in the Starling Medical College, Columbus, Ohio, died, after a protracted illness, in Philadelphia, on Saturday, May 22, at the age of thirty-eight. He was born in Philadelphia, was graduated from the Jefferson Medical College in 1870, and, after practising in Niles, Ohio, for several years, settled in Columbus in 1877. He was a member of the Pathological Society of Philadelphia, of the Trumbull (Ohio) County Medical Association (its President in 1876), and of the Columbus Academy of Medicine. He was the author of several valuable obstetrical monographs, and an obstetrician of great promise. His death was due to Addison's disease and pulmonary tuberculosis.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM MAY 23, 1886, TO JUNE 5, 1886.

COLONEL J. H. BAXTER, CHIEF MEDICAL PURVEYOR.—Ordered to proceed to New York City on public business, and, on the completion thereof, to return to his station. S. O. 128, A. G. O., June 3, 1886.

LIEUTENANT-COLONEL CHARLES PAGE, SURGEON.—Granted leave of absence for one month, with permission to apply for ten days' extension. S. O. 55, Department of Missouri June 1, 1886.

LIEUTENANT-COLONEL ANDREW K. SMITH, SURGEON; MAJOR ALFRED A. WOODHULL, SURGEON; and CAPTAIN JAMES P. KIMBALL, SURGEON.—Detailed as board to assemble at United States Military Academy, West Point, New York, on June 1, 1886, to examine into the physical qualifications of members of the graduating class and the candidates for admission to the Academy. S. O. 119, May 21, 1886.

MAJOR ALBERT HARTSUFF, SURGEON.—Detailed as member of a board appointed to meet at United States Military Academy, West Point, New York, on June 1 and August 25, 1886, to examine into the physical qualifications of members of the graduating class and the candidates for admission to the Academy. S. O. 121, A. G. O., May 25, 1886.

Paragraph 7, S. O. 120, A. G. O., May 24, revokes so much of paragraph 12, S. O. 119, A. G. O., May 21, as details SURGEON ALFRED A. WOODHULL as member of medical examining board to meet at West Point, New York, June 1, 1886.

CAPTAIN C. K. WINNE, ASSISTANT-SURGEON.—Granted leave of absence for twenty days on surgeon's certificate of disability. S. O. 34, Department of California, May 17, 1886.

CAPTAIN HENRY S. KILBOURNE, ASSISTANT-SURGEON.—Assigned to duty at Vancouver Barracks, Washington Territory. S. O. 80, Department of the Columbia, May 15, 1886.

CAPTAIN G. W. ADAIR, ASSISTANT-SURGEON.—Granted leave of absence for two months, to take effect when his services can be spared. S. O. 128, A. G. O., June 3, 1886.

CAPTAIN E. F. GARDNER, ASSISTANT-SURGEON.—Ordered for duty at Madison Barracks, New York. S. O. 49, Division of the Atlantic, June 1, 1886.

CAPTAIN A. H. APPEL, ASSISTANT-SURGEON.—Ordered for duty at Fort Reno, Indian Territory. S. O. 52, Department of Missouri, May 24, 1886.

CAPTAIN R. B. BENHAM, ASSISTANT-SURGEON.—Ordered for temporary duty at Fort Omaha, Nebraska. S. O. 56, Department of the Platte, May 24, 1886.

FIRST-LIEUTENANT R. W. JOHNSON, ASSISTANT-SURGEON.—Ordered for duty at Fort Adams, Rhode Island. S. O. 45, Division of the Atlantic, May 25, 1886.

FIRST-LIEUTENANT R. L. ROBERTSON, ASSISTANT-SURGEON.—Relieved from temporary duty at Fort Snelling, Minnesota, and ordered to Fort Keogh, Montana Territory.

FIRST-LIEUTENANT JOHN L. PHILIPS, ASSISTANT-SURGEON.—Relieved from duty at Fort Keogh, Montana Territory, and ordered to Fort Sisseton, Dakota Territory. S. O. 45, Department of Dakota, May 24, 1886.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE U.S. NAVY FROM MAY 23, 1886, TO JUNE 5, 1886.

PASSED ASSISTANT-SURGEON S. H. DICKSON.—Detached from the Naval Academy and to the "Constellation."

SURGEON W. J. SIMON.—Detached from the Naval Academy and to the "Constellation."

SURGEON B. H. KIDDER.—Detached from the "Powhatan" and to the "Tennessee."

SURGEON A. C. RHOADES.—Detached from the "Tennessee," proceed home, and wait orders.

ASSISTANT-SURGEON F. J. B. CORDEIRO.—Detached from the "Powhatan," proceed home, and wait orders.

SURGEON J. H. CLARK.—Ordered for examination preliminary to promotion.

SURGEON JOSEPH HUGG.—Detached from the "Minnesota" and granted sick-leave.

SURGEON H. N. BEAUMONT.—Ordered to the Receiving-Ship "Minnesota."

SURGEON H. L. LAW.—Detached from the "Wabash" and granted sick-leave.

ASSISTANT-SURGEON CHARLES P. HENRY.—Ordered to the Receiving-Ship "New Hampshire."

SURGEON HOWARD SMITH.—Detached from the "Nipsic" and placed on waiting orders.